

## Mark Stewart

Ph.D Experimental Psychology, University of Nevada, 1995  
MA Psychology, Humboldt State University, 1990  
BA Psychology, University of California Santa Barbara, 1986

### Employment

Professor & Chair – Willamette University, F09 – present

Associate Professor - Willamette University, F02 – Sp09

Assistant Professor - Willamette University, F98 – Sp02. Courses: sensation & perception, introductory psychology, research methods, statistics, fundamentals of neuroscience, cognitive science, human experimental psychology, biopsychology, psycholinguistics.

Visiting Professor - University of California, San Diego, Su98. Course: physiological psychology.

Visiting Professor - San Diego State University, Sp96 – Sp98. Courses: physiological, sensation & perception, learning & memory, cognition.

Visiting Professor - University of San Diego, Sp97. Course: psychobiology

Instructor (part-time) - University of Nevada, Reno, F91 & Sp95. Courses: sensation & perception, physiological.

Visiting Scholar - Center for Brain and Cognition, University of California San Diego, Su97 – Su98

NIH Postdoctoral Fellow - Center for Brain and Cognition, University of California San Diego, Su95 – Su97

Research Assistant, University of Nevada, Reno, Sp91 – F94

### Research Interests

Synesthesia: language; memory; perceptual processing.

Psycholinguistics: lexical access; speech segmentation; figurative language comprehension; speech disfluencies; bilingualism.

Science education, quantitative literacy, interdisciplinarity.

### Publications

Jarick, M., Dixon, M., Stewart, M., Maxwell, E. & Smilek, D. (2009). A different outlook on time: Visual and auditory month names elicit different mental vantage points for a time-space synaesthete. *Cortex*, 45, 1217-1228.

Stewart, M. & Stavrianeas, S. (2008). Studying reliability using identical handheld lactate analyzers. *Advances in Physiology Education*, 32, 165-166.

Stewart, M. & Stavrianeas, S. (2008). Adapting the learning-cycle to enrich undergraduate neuroscience education for all students. *Journal of Undergraduate Neuroscience Education*, 6(2), A1-A4.

Stavrianeas, S., Stewart, M. & Harmer, P. (2008). Beyond the printed page: Physiology education without a textbook? *Advances in Physiology Education*, 32, 76-80.

Stewart, M. T. & Heredia, R. R. (2002). Comprehending spoken metaphoric reference: A real-time analysis. *Experimental Psychology*, 1, 102-106.

Heredia, R. R. & Stewart, M. T. (2002). On-line methods in bilingual spoken language research. In R. R. Heredia & J. Altarriba (Eds.), *Bilingual Sentence Processing*, Amsterdam: Elsevier (pgs. 7-27)

Wallace, W. P., Stewart, M. T., Shaffer, T. R., & Wilson, J. A., (1998). Are false recognitions influenced by prerecognition processing? *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 24(2), 299-315.

Wallace, W. P., Stewart, M. T., & Malone, C. P. (1995). Recognition memory errors produced by implicit activation of word candidates during the processing of spoken words. *Journal of Memory and Language*, 34, 417-439.

Wallace, W. P., Stewart, M. T., Sherman, H. L., & Mellor, M. D. (1995). False positives in recognition memory produced by cohort activation. *Cognition*, 55, 85-113.

Stewart, M. T., & Wallace, W. P. (1993). Effects on later recognition of misperceived spoken words following two attempts at initial identification. *Psychonomic Bulletin and Review*, 31, 471-474.

#### In Review

Stewart, M., & Stavrianeas, S. Promoting science literacy through critical evaluation of science news reports, *Science Education*.

#### In Preparation

Stewart, M., & Scolari, M. The color of words misremembered: Photism congruency and false recognition in grapheme-color synesthesia.

Stewart, M., & Schroeder, A. *Giggling Nannies and Sassy Puppies*: Concurrent congruency facilitates processing in grapheme-color synesthesia.

Stewart, M., Maxwell, E., Dixon, M., Jarick, M., & Smilek, D. If you could see what I hear: Vantage point preference for month names in time-space synesthesia.

#### Published Abstracts

Scolari, M. R., Schroeder, A. L. & Stewart, M. T. (2003). Photism Distinctiveness and recall accuracy in a grapheme-color synesthete. *Abstracts of the Psychonomic Society*, 8, (4036), 44th Meeting of the Psychonomic Society, Vancouver, BC

- Heredia, R. R., Stewart, M. T., & Martinez, K. M. (2003). Metaphoric reference: An examination of bilingual figurative language processing. Paper, 16th Annual CUNY Conference on Human Sentence Processing, Massachusetts, Institute of Technology (MIT), Cambridge, MA
- Stewart, M. T. & Heredia, R. R. (1998). Evidence of contextual facilitation during comprehension of reference metaphor. *Abstracts of the Psychonomic Society*, 3, (462), 39th Meeting of the Psychonomic Society, Dallas, TX
- Heredia, R. R. & Stewart, M. T. (1998). Bilingual online sentence processing: A moment-to-moment processing approach. *Abstracts of the Psychonomic Society*, 3, (623), 39th Meeting of the Psychonomic Society, Dallas, TX
- Stewart, M. T., Heredia, R. R., & Guzman, D. (1997). Moment-to-moment processing of reference metaphors during comprehension of spoken sentences. *Abstracts of the Psychonomic Society*, 2, (478), 38th Meeting of the Psychonomic Society, Philadelphia, PA
- Heredia, R. R., Stewart, M. T., & Cregut, M. (1997). Bilingual on-line sentence processing: Frequency and context effects in code switching. *Abstracts of the Psychonomic Society*, 2, (91), 38th Meeting of the Psychonomic Society, Philadelphia, PA
- Stewart, M. T. (1996). Activation of words by nonwords: The importance of word onsets revisited. *Abstracts of the Psychonomic Society*, 1, (303), 37th Meeting of the Psychonomic Society, Chicago, IL

#### Research In Progress

- Stewart, M. & Stavrianeas, S. Keck/PKAL Facilitating interdisciplinary learning initiative.
- Stewart, M. & Maxwell, E. Letter position and salience in grapheme-color synesthesia.
- Heredia, R. R. & Stewart, M. Language-borrowing and code-switching in Spanish English bilinguals: Evidence from the auditory moving window task.
- Stewart, M. & Yamouchi, Y. Comprehension of paraphrasing, inference, and metaphor by Japanese listeners.

#### Juried Presentations

- Stewart, M. & Stavrianeas, S. (2009). *iScience* at Willamette: Improving introductory science offerings one laboratory activity at a time. Poster, Keck-PKAL Summer Institute on Facilitating Interdisciplinary Learning (FIDL) in STEM Fields. July 29-31, 2009, Washington College, Chestertown, MD.
- Stavrianeas, S., & Stewart, M. (2009). Promoting science literacy through a lab-led introductory course in neuroscience. Poster, Society for Neuroscience Oregon Chapter, Troutdale, OR.
- Stewart, M. (2008). Expanding world views in the science classroom: International vs. domestic reporting of scientific discovery. Presenter, NITLE workshop, Internationalizing the curriculum: The role of technology. November, Whittier College, California.

- Stewart, M., Dixon, M., Maxwell, E., Jarick, M., & Smilek, D. (2008). If you could see what I hear: Vantage point preference for month names in a time-space synesthete. Presenter, 7<sup>th</sup> Meeting of the American Synesthesia Association. September, McMaster University, Hamilton, Ontario, Canada.
- Jarick, M., Dixon, M., Stewart, M., Maxwell, E., & Smilek, D. (2008). Time-space associations in synaesthesia: When input modality matters. Paper presented at the Vision Sciences Society 8th Annual Meeting (VSS). June, Naples, Florida.
- Dixon, M., Stewart, M., Jarick, M., Maxwell, E. & Smilek, D. (2008). A different outlook on time: Visual and auditory month names elicit different vantage points for a mental calendar in a time-space synaesthete. Paper presented at the 4<sup>th</sup> Meeting of the UK Synaesthesia Association. April, University of Edinburgh, Scotland.
- Stewart, M. T. (2007). Giggling Nannies and Sassy Puppies: Toward and understanding of lexical-color synesthesia. Presenter, 6<sup>th</sup> Meeting of the American Synesthesia Association. January, University of South Florida, St. Petersburg, FL.
- Stewart, M. T. (2004). Photism congruency and false recognition in grapheme-color synesthetes. Presenter, 4<sup>th</sup> Meeting of the American Synesthesia Association, Institute of Cognitive and Brain Sciences. November, University of California, Berkeley
- Stewart, M. T. (2004). The impact of photistic congruency on recognition memory in grapheme-color synesthesia. Presenter, Cognitive Science Association for Interdisciplinary Learning. July, Hood River, OR
- Scolari, M. R., Schroeder, A. L. & Stewart, M. T. (2004). The impact of synesthetic photisms on memory for words. Presentation, 84<sup>th</sup> meeting of the Western Psychological Association. April, Phoenix, AZ
- Schroeder, A. L., Scolari, M. R. & Stewart, M. T. (2004). Priming synesthetic photisms with words: Does strength matter? Presentation, 84<sup>th</sup> meeting of the Western Psychological Association. April, Phoenix, AZ
- Scolari, M. R., Schroeder, A. L. & Stewart, M. T. (2003). Photism Distinctiveness and recall accuracy in a grapheme-color synesthete. Presentation, 44<sup>th</sup> meeting of the Psychonomic Society. November, Vancouver, BC
- Heredia, R. R., Stewart, M. T., & Martinez, K. M. (2003). Metaphoric reference: An examination of bilingual figurative language processing. Paper, 16th Annual CUNY Conference on Human Sentence Processing, Massachusetts, Institute of Technology (MIT), Cambridge, MA
- Stewart, M. T. (2001). Segmentation of the Speech Stream During Real-Time Comprehension of Spoken Sentences. Poster, 81st meeting of the Western Psychological Association, Maui, HI
- Joa, D. & Stewart, M. T. (2001). Metaphoric reference through a visual moving window. Poster, 81st meeting of the Western Psychological Association, Maui, HI
- Baker, J. & Stewart, M. T. (2000). Salience and automaticity of metaphor comprehension: Determining the ease with which we comprehend metaphorical speech. Poster, 80th meeting of the Western Psychological Association, Portland, OR

- Guzman, D. & Stewart, M. T. (1998). Examining the effects of context on metaphoric reference: Evidence from the auditory moving window task. Paper presentation, 7<sup>th</sup> Annual UCSD Summer Research Conference, San Diego, CA
- Guzman, D., Edgmon, T., Stewart, M. T., & Heredia, R. R. (1998). Observation of figurative reference through an auditory moving window. Poster, 3rd Joint meeting of the Western and Rocky Mountain Psychological Associations, Albuquerque, NM
- Wallace, W. P. & Stewart, M. T. (1997). Perceptual processing and recognition memory errors. Chapter, Conference Proceedings from the 4th Annual meeting of the Australasian Cognitive Science Society, University of Newcastle, Australia.
- Stewart, M. T., & Wallace, W. P. (1996). Multiple phonemic changes before and after critical positions in speech recognition. Paper, 66th meeting of the Rocky Mountain Psychological Association, Park City, UT
- Stewart, M. T., & Wallace, W. P. (1995). Paired phoneme substitutions and remembering words you haven't heard. Poster talk, 36th meeting of the Psychonomic Society, Los Angeles, CA
- Malone, C., Stewart, M. T., & Wallace, W. P. (1995). Word beginnings have special status in producing false positives in auditory recognition memory. Paper, 65th meeting of the Rocky Mountain Psychological Association, Boulder, CO
- Stewart, M. T., Wilson, J. A., & Wallace, W. P. (1995). Locus of nonword deviation points and recognition memory errors: A monotonic relation. Paper, 65th meeting of the Rocky Mountain Psychological Association, Boulder, CO
- Appert, C., Stewart, M. T., & Wallace, W. P. (1994). False positives in recognition memory produced by on-line processing of spoken words. Paper, 64th meeting of the Rocky Mountain Psychological Association, Las Vegas, NV
- Stewart, M. T., Sherman, H. L., Mellor, M. D., & Wallace, W. P. (1993). Effects of spoken non-words on recognition memory: evaluating two models. Paper, 2nd Joint meeting of the Western and Rocky Mountain Psychological Associations, Phoenix, AZ
- Wallace, W. P., & Stewart, M. T. (1992). Pre-recognition processing of spoken nonwords affects subsequent word recognition. Paper, 33rd meeting of the Psychonomic Society, St. Louis, MO
- Stewart, M. T., & Wallace, W. P. (1992). Recognizing spoken words that are misperceived: pre- or post-access processing? Paper, 62nd meeting of the Rocky Mountain Psychological Association, Boise, ID
- Stewart, M. T., & Wallace, W. P. (1992). Pre-access processing of spoken non-words and subsequent false recognition of spoken words. Paper, 62nd meeting of the Rocky Mountain Psychological Association, Boise, ID
- Stewart, M. T., & Knight, J. M. (1990). The effects of fatigue on tests of visual ability in patients with MS. Poster, 70th meeting of the Western Psychological Association, Los Angeles, CA

## Invited Presentations

- Stewart, M. & Stavrianeas, S. (2009). Promoting interdisciplinary science education at Willamette. Presentation, Faculty Research Colloquium, Willamette University, April.
- Stewart, M. (2008). Colored numbers, sour nouns, and upside-down months: Ongoing investigation of synesthesia in its various forms. Presentation, Tokyo International University, Japan (<http://www.tiu.ac.jp/other/news20080513.php>)
- Stewart, M. (2006). Speech production and comprehension: Understanding brain in human cognition. Presentation, Kirsner Speech Production Group, University of Western Australia, Perth.
- Stewart, M. (2005). What can synesthesia tell us about human consciousness? Presenter, Mini-University Session talk, Willamette University Parents-Family Weekend.
- Stewart, M. (2005). Photism Congruency and false recognition in grapheme-color synesthetes. Invited presentation, Department of Cognitive and Neural Systems, University of Arizona, Tucson, AZ
- Stewart, M. (2004). Synesthetic photisms and false recognitions: The quest for a new methodology. Invited talk, Psychology Department Colloquium Series, Reed College, Portland, OR
- Stewart, M. (2004). Synesthesia: The strangest thing. Presenter, Willamette University Institute for Continued Learning.
- Stewart, M. (2004). Observation of metaphoric reference through an auditory moving window. Presenter, Linguistics Lecture Series, Hatfield Room, Willamette University.
- Stewart, M. (2003). Investigations into the perceptual reality of synesthetic photisms. Invited talk, Psychology Department Colloquium Series, Lewis & Clark College, Portland, OR
- Stewart, M. (2003). On the simultaneity of being blue and a baked potato: A psychologist investigates synesthesia. Presenter, Mini-University Session talk, Willamette University Parents-Family Weekend.
- Stewart, M. (2003). What color is Willamette? A psychologist investigates synesthesia. Presentation, Faculty Research Colloquium, Willamette University.
- Stewart, M. (2003). What's new in information technology at Willamette?
- Stewart, M. (2001). Synesthesia: The strangest thing. Presentation, Faculty Research Colloquia, Willamette University.
- Stewart, M. (2000). "Why I encourage technology use in the classroom." Presentation made to Board of Trustees, Willamette University, Salem, OR
- Stewart, M. (2000). On the real-time comprehension of metaphor. Guest lecture, upper division course in Metaphor offered by Rhetoric and Media Studies department, Willamette University, Salem, OR

- Stewart, M. (1999). What can the eye tell us about how the brain organizes its information? Parents Weekend presentation, Willamette University, Salem, OR
- Stewart, M. (1997). "Excuse me, did you just say 'new display' or 'nudists play'?" Colloquium, Department of Psychology, California State University, Northridge, CA
- Stewart, M. (1996). Examination of cohort activation during spoken word recognition: Evidence from recognition memory. Colloquium, Language and Cognitive Processes Series, Center for Human Information Processing, University of California, San Diego.
- Stewart, M. (1995). Monitoring implicit activation of spoken words: are onsets or offsets more important? Colloquium, Department of Psychology, California State University, Chico, CA
- Stewart, M. (1994). Pre-lexical activation of spoken words as seen through a recognition memory task. Graduate Student Colloquium Series, University of Nevada
- Stewart, M. (1992). Recognition of spoken stimuli: pre or post recognition processing? Graduate Student Colloquium Series, University of Nevada

#### Funded Proposals

- Stewart, M., & Stavrianeas, S. Hewlett Foundation Grant for promoting interdisciplinary science education at Willamette. \$6000 award, begun Su09, completed F09.
- Stewart, M., & Stavrianeas, S. (2008). Promoting science literacy through neuroscience laboratory exercises. National Science Foundation, Dept. of Undergraduate Education, Course, Curriculum & Laboratory Improvement (CCLI) grant. \$105,794 award, F08 - Sp10.
- Stewart, M. Hewlett Foundation Grant for Psychology Department revisions to Research Methods I & II courses. \$5000 award, begun Su07, completed F07.
- Stavrianeas, S. & Stewart, M. Hewlett Foundation Grant for development of team-taught, IDS UNW MOI course, *Fundamentals of Neuroscience*. \$4000 award, begun Sp04, completed F04.
- Stewart, M. & Linn, A. Northwest Academic Computing Consortium (NWACC), \$5000 Digital Materials Development Award, Spring 2000, completed Sp01.
- Stewart, M. T. Hewlett Foundation Grant for advanced training in use of multimedia development software at PSU. \$1050 tuition award, Spring 2000, completed Sp01
- Stewart, M. T. Hewlett Foundation Grant for the Implementation of General Education, Introduction to Cognitive Science course, \$600 summer stipend, Spring 1999, completed Su99.

#### Senior Theses Chaired

- F07 – Sp08:  
Maxwell, Emily (empirical, time-space synesthesia)

F06 – Sp07:  
Swift, Reyna (empirical, synesthesia and nonwords)

F05 – Sp06 (study abroad)

F04 – Sp05 (sabbatical)

F03 – Sp04:  
Foster, Nathan (empirical/honors, bilingual memory)  
Schroeder, Abrie (empirical/honors, synesthetic photisms)  
Scolari, Miranda (empirical/honors, synesthesia & memory)

F02 – Sp03:  
Snodgrass, Matthew (honors, visual prosthetics)

F01 – Sp02:  
Kennedy, Josh (honors, visual processes)  
Asbury, Jenny. (honors, pheromonal regulation)

F00 – Sp01:  
Wade, Christine (empirical: speech disfluencies)  
Tuck, Lindsay (honors: Alzheimer's Disease)  
Harrison, Travis (honors: taboo language)

#### Ad Hoc Reviewer

Journal of Psycholinguistic Research  
Memory & Cognition  
Perception & Psychophysics  
Journal of Memory and Language  
International Thomson Publishing (Statistics texts)  
National Science Foundation, Dept. of Undergraduate Education

#### Willamette Service

Department Chair, F08 – Sp11  
International Education Committee, F07 – Sp08; chair F08 – Sp09  
Faculty Resources Committee, F05, F06 – Sp07  
Faculty Council, F02 – Sp04  
Academic Council/Positions Committee, F00 – Sp01  
Benefits and Wellness Committee, F99 – Sp00  
President's Technology Assessment Steering Committee, F99 – Sp00  
WITS Executive Director Search Committee, Sp99  
University Committee for Technology Policy and Planning, F98

#### Teaching Honors & Awards

*Who's Who of American Teachers*, 9<sup>th</sup> Ed., 2006

#### Professional Organizations

Psychonomic Society  
Western Psychological Association  
American Synesthesia Association

Community Outreach

Programs Committee – Cascade Futbol Club  
Youth Coach – Upward Basketball