## **CURRICULUM VITAE**

# Jennifer Vendemia, PH.D.

**ADDRESS:** University of South Carolina (USC)

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**EDUCATION:** 

Ph.D Virginia Polytechnic Institute and State University, Blacksburg, VA. (May, 1999), Experimental

Psychology (Emphasis on Cognitive Neuroscience). Dissertation: Repressors vs. low- and high- anxious

coping styles: EEG, heart rate, and blood pressure differences during cognitive and cold pain

stressors. Helen J. Crawford, Ph.D.

M.A. Hollins College, Hollins, VA. (May, 1993), Experimental Psychology. Master's Thesis: Wandering behavior

as a function of season and time of day. George J. Ledger, Ph.D.

**B.S.** Virginia Polytechnic Institute and State University, Blacksburg, VA. (May, 1992), Psychology. Senior

Thesis: The effect of light on unilateral stroke patients in a dichotic listening task. David W. Harrison, Ph.D.

### **HONORS AND AWARDS**

2013 Associate Professor Career Development Award (\$5,000).

#### **PROFESSIONAL EXPERIENCE**

Aug 2010-Aug 2011 Program Director, Graduate Program in Experimental Psychology, University of South Carolina,

Columbia, SC.

Aug 2007-present Associate Professor. Department of Psychology, University of South Carolina, Columbia, SC.

2008 – present, John E. Richards, Ph.D.; 2007-2008 Charles F. Mactutus, Ph.D. Graduate and Undergraduate Instruction. Continue to conduct research program in neuroscientific modeling

of deceptive behavior.

Jun 2000-Aug 2007 Research Assistant Professor & Research Associate Professor. Department of Psychology,

University of South Carolina. 2000-2004, Jean Ann Linney, Ph.D.; 2004-2005, John E. Richards,

Ph.D.; 2005-2008, Charles F. Mactutus, Ph.D.

Aug 1999-May 2000 Instructor. Department of Psychology, University of Georgia, Athens, GA. Chester Karwoski,

Ph.D.

Aug 1998-Aug 1999 **Postdoctoral Teaching and Research**. Department of Psychology, University of Georgia, Athens, GA . *Chester Karwoski, Ph.D.* 

#### **GRANT FUNDING**

Sep 2018-May 2022	Co-PI (\$1,500,000) R01: Linking Altered Cortical Sensorimotor Integration with Movement Impairments in Back Pain. National Institute of Child Health & Human Development (NICHD)/NIH
Jun 2018-Aug 2019	Co-I (\$23,000) Effects of Spinal Manipulation On Somatotopic Organization In Individuals With Low Back Pain. Orthopaedic Section, American Physical Therapy Association
Mar 2017	(\$2,000) 3Ds Bootcamp: Design, Develop, and Deliver an Online Course. Center for Teaching Excellence.
Feb 2017	(\$500) Getting Started Teaching an Online Course. Center for Teaching Excellence.
Mar 2012-Aug 2014	Co-I (2012), PI (2013; \$98,731). REU Sites: Summer Research in Brain and Cognitive Sciences. National Science Foundation.
Jan 2007-Jan 2012	PI. Continuation Brain Imaging Research: The Detection of Deception Utilizing HD-ERP, fMRI, and Pupillometry. (\$1,250,000). U.S. Army Medical Research Acquisition Activity, USAMRAA.
Jan 2006-Oct 2006	PI. Extension Brain Imaging Research: The Detection of Deception Utilizing HD-ERP, fMRI, and Pupillometry. (\$300,000). U.S. Army Medical Research Acquisition Activity, USAMRAA.
Dec 2005-Dec 2008	PI. Brain Imaging Research: The Detection of Deception Utilizing HD-ERP, fMRI, and Pupillometry. (\$3,660,000). U.S. Army Medical Research Acquisition Activity, USAMRAA.
Sep 2003-Sep 2005	PI. Modeling the Neurocognitive Processes of Deception. (\$487,000). National Science Foundation.
Jun 2002-Dec 2004	PI. Continuation Research Assistant Professor Research/Research Training in Cognitive Psychophysiology and Detection of Deception. (\$350,000). Department of Defense Polygraph Institute.
Jun 2000-Jun 2002	Co-I. Research Assistant Professor Research/ Research Training in Cognitive Psychophysiology and Detection of Deception. (\$321,964). Department of Defense Polygraph Institute.

## **GRANT Applications:**

Jul 2021-Jun 2023 Co-PI. R21: Connecting Brain Dynamics to Trunk Muscle Synergies: An Integrative Approach to

*Understanding Movement Control and the Impact of Back Pain.* (\$413,595). NIH. Submission:

10/15/2020.

#### As Mentor or Consultant:

Jul 2020-Jun 2022 Courtney Butowicz (\$4,936) Linking Cortical Sensorimotor Adaptations to Impaired Movement

Control in Lower Limb Amputees. Aspire. Sub-track IIB, Postdoctoral Scholar Development.

Feb 2010 Adam Craig (\$10,000). The Power of Celebrity: fMRI Evidence of Neural Response to Beauty and

Fame. McCausland Center, Internal Funding.

# **PUBLICATIONS: (\* denotes student author)**

Silfies, S. P., Paul F Beattie, P. F., Jordon, M. \*, & Vendemia, J.M.C. (2020). Assessing Sensorimotor Control of the Lumbopelvic-Hip Region using Task-based Functional MRI. *Journal of Neurophysiology 124* (1), 192-206. https://doi.org/10.1152/jn.00288.2019.

- Butowicz, C.M., Silfies, S.P., Vendemia, J.M.C., Farrokhi, S., & Hendershot, B.D. (2020). Characterizing and Understanding the Low Back Pain Experience Among Persons with Lower Limb Loss. *Pain Medicine*, *21*(5), 1068-1077.
- Meek, S.W.\*, Bunde, J., Phillips-Meek, M.C.\*, Vendemia, J.M.C. (2019). Deception Processing by Third-Party Observers: The Role of Speaker Intent. *Psychological reports*, *122*(5), 1808-1823.
- Meek, S.W.\*, Phillips-Meek, M.C.\*, Vendemia, J. (2018). The Impact of Memory Retrieval on Deception and Truth Telling. *North American Journal of Psychology, 20*(3), 637-652.
- Silfies, S.P., Vendemia, J.M.C., Beattie, P.F., Stewart, J.C., Jordon, M.\* (2017). Changes in Brain Structure and Activation May Augment Abnormal Movement Patterns: An Emerging Challenge in Musculoskeletal Rehabilitation. *Pain Medicine* 1;18(11), 2051-2054. doi: 10.1093/pm/pnx190.
- Almor A., Nair V.A.\*, Boiteau T.W.\*, & Vendemia, J.M.C. (2017). The N400 in processing repeated name and pronoun anaphors in sentences and discourse. *Brain and Language*, 173, 52-66.
- Facciani, M.\*, Warren, P.\*, & Vendemia, J. (2015). A Content-Analysis of Race, Gender, and Class in American Comic Books. *Race, Gender & Class, 22* (3-4), 216-226.
- Van Dam, W.O., Decker, S. L, Durbin, J.S.\*, Vendemia, J.M.C., & Desai, R.H. (2015). Resting state signatures of domain and demand-specific memory performance. *NeuroImage*, 118, 174-182.
- Richards, J. E., Boswell, C.P.\*, Stevens, M., & Vendemia, J.M.C. (2015). Evaluating Methods for Constructing Average High-Density Electrode Positions. *Brain topography*, 28 (1), 70-86.
- Reynolds, A.M.\*, Peters, D.M., Vendemia, J.M., Smith, L.P., Sweet, R.C., & Baylis, G.C. (2014). Neuronal injury in the motor cortex after chronic stroke and lower limb motor impairment: a voxel-based lesion symptom mapping study. *Neural Regeneration Research*, *9*(7), 766 -778.
- Vendemia, J.M.C. (2014). fMRI as a Method of Detection of Deception: A Review of Experiences. *European Polygraph, 8* (1), 5-21.
- Meek, S.W.\*, Phillips, M.C.\*, Boswell, C.P.\*, & Vendemia, J.M.C. (2013). Deception and the misinformation effect: An event-related potential study. *International Journal of Psychophysiology*, 87(1), 81-87.
- Kilmann, P.R., & Vendemia, J.M.C.\* (2013). Partner Discrepancies in Distressed Marriages. *The Journal of Social Psychology*, 153 (2), 196-211.
- Greer, T.M., Vendemia, J.M.C., & Stancil, M.\* (2012). Neural correlates of race-related social evaluations for African Americans and White Americans. *Neuropsychology*, 26(6), 704-712.
- Craig, A.W.\*, Loureiro, Y.K, Wood, S. & Vendemia, J.M.C. (2012). Suspicious Minds: Exploring Neural Processes During Exposure to Deceptive Advertising. *Journal of Marketing Research*, 49(3), 361-372.
- Phillips, M.C.\*, Meek, S.W., & Vendemia, J.M.C. (2011). Understanding the underlying structure of deceptive behaviors, *Personality and Individual Differences*, 50(6), 783-789.
- Vendemia, J.M.C., & Rodrigues, P.D.\* (2010). Repressors vs. low- and high-anxious coping styles: EEG dynamics during cognitive stressors. *International Journal of Psychophysiology, 78(3),* 284-294.
- Kilmann, P.R., Vendemia, J.M.C., Parnell, M.M., & Urbaniak, G.C. (2009). Parent characteristics linked with daughters' attachment styles. *Adolescence*, 44, 557-568.
- Phillips, M.C.\*, & Vendemia, J.M.C. (2008). Individual differences in comparison question anxiety. *European Polygraph, 2* (3-4), 5-6.
- Vendemia, J.M.C., Schillaci, M.J., & Buzan, R.F.\* (2006). Credibility Assessment: Psychophysiology and Policy in the Detection of Deception, *Journal of Forensic Psychology*, 24(4), 53-85.
- Vendemia, J.M.C., Caine, K.E.\*, & Evans, J. (2005). Quantitative EEG Findings in Convicted Murderers, Journal of Neurotherapy: Special Issue EEG and the Law (Also published in, J. R. Evans (Ed.) Forensic Applications of QEEG and Neurotherapy), 9(3), 5-29.

- Vendemia, J.M.C., Buzan, R.F.\*, Green, E.P.\*, & Schillaci, M.J. (2005). Neural mechanisms of deception and response congruity in a visual two-stimulus paradigm with motor response, *Journal of Neurotherapy: Special Issue EEG and the Law*, *9*(3), 45-70.
- Vendemia, J.M.C., Buzan, R.F.\*, & Green, E.P.\* (2005). Practice, Workload, and Reaction Times in Deception, *American Journal of Psychology*, 118(3), 413-430.
- Vendemia, J.M.C., Buzan, R.F.\*, & Simon-Dack, S.L.\* (2005). Reaction Time of Motor Responses in Two-Stimulus

  Paradigms Involving Deception and Congruity with Varying Levels of Difficulty, *Behavioural Neurology*, 16(1), 25-
- Vendemia, J.M.C. & Buzan, R.F.\* (2005). Neural Mechanisms of Deception and Response Congruity in a Visual Two-Stimulus Paradigm with Motor Response, *Polygraph*, 34, 24-36.
- Kilmann, P. R., Vendemia, J.M.C., & Carranza, L.V. (2005). Recollections of parent characteristics and attachment patterns for college women from intact versus non-intact families, *Journal of Adolescence*, *29*, 89-102.
- Vendemia, J.M.C. (2003). Detection of Deception, Polygraph, 32, 97-106.
- Harrison, D. W., Beck, A.L., Vendemia, J.M.C., & Walters, R.P. (2003). Ambient sensory conditions: Modification of receptive speech deficits in left-side stroke patients using bright light, *Perceptual and Motor Skills*, *96*(2), 623-624.
- Vendemia, J.M.C., & Buzan, R.F.\* (2002). Deception and response congruity in visual two-stimulus paradigms involving motor response, *International Journal of Psychophysiology*, 45(1-2), 28-29.
- Vendemia, J.M.C. (2002). Hobson's Choice: The relationship of consequences and the Comparison Question, *Polygraph*, *31*, 20-25.
- Crawford, H.J., Knebel, T., Kaplan, L., Vendemia, J.M.C., Xie, M., Jameson, S., & Pribram, K.H. (1998). Hypnotic analgesia: I. Somatosensory event-related potential changes to noxious stimuli and II. Transfer learning to reduce chronic low back pain, *International Journal of Clinical and Experimental Hypnosis*, 46(1), 92-132.
- Crawford, H.J., Knebel, T. F., & Vendemia, J.M.C. (1998). The nature of hypnotic analgesia: Neurophysiological foundation and evidence, *Contemporary Hypnosis*, *15*(1), 22-33.
- Lamas, J., Crawford, H.J. & Vendemia, J.M.C. (1997). MMN and auditory event-related potentials during posthypnotically suggested deafness: effect of hypnotizability level, *Psychophysiology*.
- Crawford, H.J., Knebel, T., Pribram, K. H., Kaplan, L., Vendemia, J.M.C., Xie, M., & L'Hommedieu (1997). Somatosensory event-related potentials and allocation of attention to pain: effects of hypnotic analgesia as moderated by hypnotizability level, *International Journal of Psychophysiology*, 25(1), 72-73.
- Coplin. J. M. (nee Vendemia, J.M.C.) & Ragsdale, K. G. (1997). Efficacy of nicotine transdermal program vs. a nicotine fading program: a treatment outcome study, *Federal Practitioner*, *14*, 46-48, 56.
- Crawford, H.J., Knebel, T., Kaplan, L., Vendemia, J.M.C., Jamison, S. & Pribram, K.H. (1996). Learning to control experimental pain in the laboratory and its effects on chronic low back pain, *International Journal of Clinical and Experimental Hypnosis*.
- Crawford, H.J., Knebel, T. F., Vendemia, J.M.C., Kaplan, L. & Ratcliff, B. (1995). EEG activation patterns during tracking and decision-making tasks: Differences between low and high sustained adults, *Proceedings of the 8th International Symposium on Aviation Psychology*, 886-890.
- Crawford, H., J., Knebel, T. & Coplin, J.M. (nee Vendemia, J.M.C.) (1994). Hypnotic analgesia is no longer a paradox: Neurophysiological and cognitive processes explored, *International Journal of Clinical and Experimental Hypnosis*, 42, 478-479.

## **Book Chapters**

Vendemia, J.M.C. & Nye, J. M.\* (2018). Chapter 8. Neuroscience of Deception. In *Forensic Applications of Neuroscience,* Vol 2 (pgs. 171-188). Beech, A. R., Carter, A. J., Mann, R. E., Rotshtein, P. (Eds.) Wiley Blackwell & Sons.

- Vendemia, J.M.C., Schillaci, M.J., Buzan, R.F.\*, Green, E.P.\*, & Meek, S.W.\* (2009). Chapter 15: The Application of Biomedical and Alternative Technologies to the Measurement of Deceptive Behavior, in *L. Madsen, D. Gruben, & D. Wilcox (eds.), Polygraph Post-Conviction Sex Offender Testing.*
- Contributor: Krapohl, D., & Sturm, S. (2002). Terminology Reference for the Science of Psychophysiological Detection of Deception, *Polygraph*, *31*(3), 154-239.

## **Technical Papers**

- Vendemia, J.M.C., Silfies, S., & Jordan, M. (2019). Development of Vibrotactile Stimulator for Use in an fMRI Environment. https://osf.io/exszh/?view\_only=a2002f565e5046228006f38bce76c247 (retrieved Nov 3, 2020).
- Vendemia, J.M.C., Silfies, S., & Sunday, K. (2018). MRI Safe Pneumatic Movement and Force Measurement System.https://osf.io/erwcp/?view\_only=06704f7dc80940f09a7c2b5fcc3173cf (retrieved Nov 3, 2020).
- Vendemia, J.M.C., Silfies, S., & Butowicz, C. (2019). MRI Compatible Lower Limb Movement System. https://osf.io/v7yp5/?view\_only=437e98376021499fb08fe95246016553 (retrieved Nov 3, 2020).
- Vendemia, J. M. C., Buzan, R. F., & Schillaci, M., & Green, E. P (2007). HD-ERP and Behavioral Predictors of Involvement in a Mock Crime Scenario, *Department of Defense Polygraph Institute*, technical paper.
- Vendemia, J. M. C. (2003). Neural Mechanisms of Deception and Response Congruity to General Knowledge Information and Autobiographical Information in Visual Two-Stimulus Paradigms with Motor Response, *Department of Defense Polygraph Institute*, (No. DoDPI99-PI), 1-57.

## MANUSCRIPTS UNDER REVIEW OR IN PREPARATION: (\* denotes student author)

- Vendemia, J.M.C., Silfies, S.P., & Kerrigan\*. Measurement of Lumbopelvic Hip Movements in an MRI Environment with a Novel Pressure Sensitive System.
- Vendemia, J., Silfies, S.P., Beattie, P., Jordon, M.\*, & Vendemia, S. fMRI measurement of sensory stimulation across multiple regions of the back.

#### **INVITED TALKS:**

- Vendemia, J.M.C., and Nye, J.\* (April 2015). *The Use of Neuroscience to Understand Deception*. South Carolina Society for Polygraph Examiners (Scape).
- Vendemia, J. (Feb, 2014). Cognitive Neuroscience of Detection Deception. Invited Symposium: Multiple Perspectives on Deception and its Detection. Paper presented at the 106<sup>th</sup> Annual Meeting of the Southern Society for Philosophy and Psychology, Charleston, SC.
- Vendemia, J.M.C., Boswell, C., Meek, S.W., Phillips, M., & Craig, A. (April, 2014). *The Future of Lie Detection*. The American Association of Police Polygraphers. Las Vegas, Nevada.
- Vendemia, J.M.C. (March 2012). Future Advances in Deception Detection. Singapore, American Polygraph Association.
- Vendemia, J.M.C. (January, 2011). *Human Brain Activity and Deception: Suggestions for Framing Clinical Interviews.* Alcohol Screening and Deception. Invited Address. Columbia, SC.
- Vendemia, J.M.C. (August 2007). Theoretical Underpinnings of Polygraph Data. New Orleans, LA.
- Vendemia, J.M.C. (May 2007). Screening Scenarios. Credibility Assessment, Research Summit. Washington, D.C.
- Vendemia, J.M.C., Meek, S.W., Schillaci, M. J. (Jul 2006). *Neuroscientific Techniques of Studying Human Deception*. Invited Address, Paper presented at the Annual Meeting of the American Polygraph Association. Las Vegas, NV.
- Vendemia, J.M.C., Schillaci, M. J., Buzan, R.F.\*, Green, E. P.\*, & Meek, S.W.\* (June 2006). *Examining the Underlying Assumptions of Neuroscientific Tests of Deception*. Invited Address, Talk presented at the Judicial Seminar on Emerging Issues in Neuroscience hosted by the Association for the Advancement of Science. Washington, D. C.

- Vendemia, J.M.C., Schillaci, M. J., Buzan, R.F., Green, E. P., & Meek, S.W. (May 2006). *Lie Detection Using EEG and ERP*. Invited Talk presented during Reading Minds: Lie Detection, Neuroscience, Law, and Society Conference hosted by The Stanford School of Law. Stanford, CA.
- Vendemia, J.M.C., Schillaci, M. J., Buzan, R.F.\*, Green, E. P.8, & Meek, S.W.8 (April 2006). *ERP and fMRI Research in the Detection of Deception*. Invited Address, Talk presented at the U.S. Army Research Laboratory Seminar on the Deception of Deception. Aberdeen, MD.
- Vendemia, J.M.C., Schillaci, M. J., Buzan, R.F.\*, & Meek, S.W.\* (March 2006). *The Future of Alternative Technologies for the Detection of Deception: Implications, Improbabilities, and Impossibilities.* Invited Address, Paper presented at the Annual Meeting of the Maryland Polygraph Association. Annapolis Junction, MD.
- Vendemia, J.M.C., & Buzan, R.F.\* (Jul 2001). *Brain Measurements During Deception*. Invited Address, Paper presented at the annual Meeting of the American Polygraph Association. Indianapolis, ID.
- Crawford, H.J., Horton, J., Hirsch, T. B., Harrington, G. S., Plantec, M. B., Vendemia, J.M.C., Shamro, C., McClain-Furmanski, D., & Downs III, J. H. (October 1998). Attention and Disattention (Hypnotic Analgesia) to Painful Somatosensory TENS Stimuli Differentially Affects Brain Dynamics: A Functional Magnetic Resonance Imaging Study. Invited Address, Paper for Symposium on "New Perspectives on Brain Imaging of Human Pain and Pain Control: Symposium in Remembrance of Bonica" (Chair: Andrew Chen), 9th World Congress of Psychophysiology. Sicily, Italy.

## **PRESENTATIONS:** (\* denotes student author)

- Jordon M., Silfies, S.P., Beattie P., Vendemia J.M.C. (2018). Brain Activation During Lumbopelvic Exercises: An fMRI Study. J Ortho Sports Phys Therapy, 48(1), A13-14
- Jordon, M.\*, Silfies, S., Beattie, P.B., Vendemia, J.M.C, & Vendemia, S.A. (2017). Spinal manipulation increases motor cortex activity in healthy adults: Preliminary results from an Fmri study. *Journal of Orthopaedic & Sports Physical* 47 (1), A105.
- Reynolds, A.M.\*, Vendemia, J.M., & Youngstedt, S.D. (June 2016). Assumptions about the benefits of more sleep are correlated with longer sleep duration in older adults. Meeting of the Associated Professional Sleep Societies, Sleep. Denver, CO. Volume: 39
- Nye, J.\*, & Vendemia, J. (2016). The additional cognitive demands involved in telling the truth relative to telling a Lie. Poster given at the North Carolina Conference on Cognition in Wake Forest, NC
- Phillips-Meek, M.\* & Vendemia, J.M.C. (2015, November). The Impact of Age and Frontal Lobe Functioning on Susceptibility to Misinformation. Poster presented at the Annual Meeting of the Psychonomics Society, Chicago, IL.
- Nye, J.\*, & Vendemia, J. (2015). The plasticity of intentional resource allocation in tasks with trial and inter-trial cognitive demands. Poster presented at Neuroscience of Attention in Columbia, SC.
- Vendemia, J.M.C., & Nye, J.\* (April, 2015). Advanced statistical methods for deception detection. Invited Talk given to South Carolina Police Polygraphy Association.
- Nye, J.\*, & Vendemia, J. (April, 2015). The sum of all lies: The cognitive cost of lying. Hard Data Cafe. Columbia, SC.
- Silfies, S.P., Jordon, M.K.\*, Beattie, P.F., Vendemia, J.M.C., Vendemia, S.A. (2016). Linking Brain Activity with Changes In Trunk Movement Patterns In Patients With Recurrent And Chronic Back Pain. *Journal of Orthopaedic & Sports Physical*, 46 (1), A22.
- Facciani, M. J.\*, Warren, P.\*, & Vendemia, J. (2015). Holy Race and Gender Discrimination, Batman: A Critical Review of American Comic Books. International Conference on Masculinities, New York, NY.
- Boswell, C.\*, & Vendemia, J.M.C. (March, 2014). *An fMRI Look at Emotion Induction*. Poster presented at the North Carolina Cognition Group Conference, Raleigh, NC.

- Reynolds, A.\*, & Vendemia. J.M.C. (March, 2014). *Mapping Motor Impairment after Chronic Str*oke. Talk presented at the North Carolina Cognition Group Conference, Raleigh, NC.
- Craig, A.\* Wood, S. & Vendemia, J. (2011) ,More Than Just "Sex Sells": the Economics of Attraction Motives in Complex Social Consumption Contexts, In NA-Advances in Consumer Research Volume 39, eds. Rohini Ahluwalia, Tanya L. Chartrand, and Rebecca K. Ratner, Duluth, MN: Association for Consumer Research, Pages: 99-100.
- Vendemia, J.M.C. (November, 2010). The Use and Misuse of Imagery to Explain Neuroscientific Research. The Use and Misuse of Imagery to Explain Neuroscientific Research. Presentation given to the Consortium at USC for Science, Technology, Health, and Medicine in Society. Columbia, SC.
- Wood, S., Craig, A.W.\*, Smith, D.V. Huettel, S., & Vendemia, J.M.C. (September, 2010). *Celebrity on the Brain: Orbitofrontal Cortex Modulation by Novel versus Familiar Beautiful Faces.* Presentation given to the Interdisciplinary Symposium on Decision Neuroscience, Philadelphia
- Meek,S.W.\*, Phillips, M.C.\*, Bradshaw-Baucom, L.\* &. Vendemia, J.M.C. (May, 2009). Relationship between individual differences in spatial and working memory and cortical activation during a deceptive task: An fMRI study. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Wood, S. L., Vendemia, J., Yuliya, K.\*, & Craig, A\*. (May 2008). *Thinking Anew: Neural Correlates of Processing Innovative Options*. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Craig, A.\*, Yuliya, K.\*, Vendemia, J., & Wood, S.L. (May 2008). *Neural Correlates of Deception Detection: A Bold Imaging Study.* Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Meek, S.W.\*, Phillips, M.\*, Baucom, L.\*, & Vendemia, J.M.C. (May 2008). Posterior Parietal Activity and Workload Capacity as Correlates of Frequency of Deceptive Responding: A BOLD Imaging Study. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Buzan, R.F.\*, Phillips, M.\*, Meeks, S.W.\*, Kirk, A.\*, & Vendemia, J.M.C. (May 2007). ERN as an Index of Catastrophic Response to Failure. Poster presented at the 12th annual meeting of the Cognitive Neuroscience Society (CNS). New York, NY.
- Phillips, M.\*, Meek, S.W.\*, Craig, A.\*, Sanchez, C.\*, & Vendemia, J.M.C. (May 2007). Event-Related Potential Correlates of Switching Between Truthful and Deceptive Responses. Poster presented at the 12th annual meeting of the Cognitive Neuroscience Society (CNS). New York, NY.
- Sanchez, C.\*, Meek, S.W.\*, Phillips, M.\*, Craig, A., & Vendemia, J.M.C.V (May 2007). Anterior Cingulate and Prefrontal Activity as Correlates of Attention Switching and Consideration of Multiple Relations during Truthful and Deceptive Responses: A BOLD Imaging Study. Poster presented at the 12th annual meeting of the Cognitive Neuroscience Society (CNS). New York, NY.
- Meek, S.W.\*, Phillips, M.\*, Sanchez, C.\*, Craig, A.\*, & Vendemia, J.M.C. (March 2007). *Misinformation & Deception*. Presentation. Poster presented at the 12th annual meeting of the Cognitive Neuroscience Society (CNS). New York, NY.
- Vendemia, J.M.C., Brooke, J., Green, E.P., Schillaci, M.J., & Buzan, R.F. (April 2005). *Practice Effects on ERP-Components Related to Deceptive Responses.* Poster presented at the 12th annual meeting of the Cognitive Neuroscience Society (CNS). New York, NY.
- Schillaci, M.J., Vendemia, J. M.C., Buzan, R.F., & Green, E.P. (April 2005). A Two-Level Quantum Analysis of ERP Data for Mock-Interrogation Trials. Poster presented at the 12th annual meeting of the Cognitive Neuroscience Society (CNS). New York, NY.
- Fitz, M.E., Kilmann, P.R., Vendemia, J. M.C., Wanlass, R.L., & Brown, G. E. (September 2004). Attitudes and Behaviors Associated with Masturbation: A 25-Year Contrast. Poster presented at the Southeastern Psychological Association. Atlanta, GA.

- Vendemia, J.M.C., & Buzan, R.F.\* (April 2004). HD-ERP Correlates of Workload During Deception in two Mock Crime Paradigms. Poster presented at the 11th annual meeting of the Cognitive Neuroscience Society (CNS). San Francisco, CA.
- Kilmann, P.R., Vendemia, J.M.C., Meyers, L. L., Kilmann, A., & Fitz, M. E. (April 2004). *Personality Characteristics of Women Seeking Weight Reduction*. Poster presented at the Southeastern Psychological Association. Atlanta, GA.
- Vendemia, J.M.C., & Schillaci, M. J. (February 2004). *Neuroscientific Modeling of Deception with HD-ERPs and fMRI: Experimental and Computational Problems*. Colloquium, Colloquium Presented to the Department of Computer Science and Engineering, University of South Carolina. Columbia, SC.
- Vendemia, J.M.C., & Buzan, R.F.\* (September 2003). Neural Mechanisms of Deception and Response Congruity in a Visual Two-Stimulus Paradigm Involving Autobiographical Information. Poster presented at the 43rd annual meeting of the Society for Psychophysiological Research. Chicago, II.
- Vendemia, J.M.C., Caine, K. E., & Evans, J. (August 2003). *Quantitative EEG Findings in Convicted Murderers*. Paper presented at the 11th Annual Conference for the Society of Neurotherapy . Houston, TX.
- Vendemia, J.M.C., & Buzan, R.F.\* (August 2003). The Effects of Response Predictability on HD-ERP and RT Measures Across studies of Deception. Paper presented 11th Annual Conference for the Society of Neurotherapy. Houston, TX.
- Vendemia, J.M.C., & Buzan, R.F.\* (April 2003). The Effects of Response Predictability on HD-ERP Measures Across Studies of Deception. Poster session presented at the 10th Annual Convention of the Cognitive Neuroscience Society. New York, NY.
- Kilmann, P.R., Pontinen, L.L., & Vendemia, J.M.C. (April 2003). *Personality Characteristics of Obese Women Seeking Bariatric Surgery*. Poster presented at the Southeastern Psychological Association. New Orleans, LA.
- Vendemia, J.M.C., & Buzan, R.F.\* (Jul 2002). Deception and Response Congruity in Visual Two-Stimulus Paradigms Involving Motor Response. Paper presented at the 11th World Congress of Psychophysiology. Montreal, Canada.
- Buzan, R.F., Sasine, G.M.\*, Spade, A.\*, & Vendemia, J.M.C. (April 2002). Source Localization of the Effects of Deception and Stimulus Congruity on Event-Related Potentials. Poster session presented at the 9th Annual Convention of the Cognitive Neuroscience Society. San Francisco, CA.
- Vendemia, J.M.C., & Buzan, R.F.\* (May 2001). ERP Correlates of the Attentional Processes Involved in Deception. Paper presented at the South Carolina Bicentennial Symposium on Attention. Columbia, SC.
- Vendemia, J.M.C., Buzan, R.F.\*, Pollina, D., & Ryan, A. (April 2001). *ERP Correlates of Deception Using a Two-Stimulus Paradigm*. Poster session presented at the 8th Annual Convention of the Cognitive Neuroscience Society. New York, NY.
- Rodriguez, D.P.\*, Vendemia, J.M.C., & Crawford, H.J. (April 2001). *EEG Differences Across Coping Styles*. Poster presented at the 8th Annual Convention of the Cognitive Neuroscience Society. New York, NY.
- Vendemia, J.M.C. & Buzan, R.F.\* (February 2001). *ERP Correlates of Deception*. Talk presented at North Carolina Cognition Group. Greensboro, NC.
- Downs III, J.H., Crawford, H.J., Plantec, M. B., Horton, J.E., Vendemia, J.M.C. Vendemia, Harrington, G.C., Yung, S., & Shamro, C. (June 1998). *Attention to Painful Somatosensory TENS Stimuli.* Poster presented at the Cognitive Neuroscience Society. Toronto, Canada.
- Vendemia, J.M.C., Horton, J., & Crawford, H.J. (May 1998). *Physiological Reactivity of Repressors and Non-Repressors on an Emotional Stroop Interference Task*. Presentation, Poster presented at the 10th Annual Convention of the American Psychological Society. Washington, DC.
- Crawford, H.J., Horton, J. E., Harrington, G. C., Vendemia, J.M.C., Plantec, M. B., Jung, S., Shamro, C., & Downs III, J.H. (June 1998). *Hypnotic Analgesia (Disattending Pain) Impacts Neuronal Network Activation: An fMRI Study of Noxious Somatosensory TENS Stimuli.* Poster presented at the Cognitive Neuroscience Society. Toronto, Canada.

- Vendemia, J.M.C., Karnasuta, M.A., & Crawford, H.J. (May 1998). Reaction Time and Errors During an Emotionally Valenced Computer Stroop Task. Poster presented at the 10th Annual Convention of the American Psychological Society. Washington, DC.
- Lamas, J., Crawford, H.J., & Vendemia, J.M.C. (October 1997). MMN and Auditory Event-Related Potentials During
  Posthypnotically Suggested Deafness: Effect of Hypnotizability Level. Paper presented at the 37th Annual Meeting
  of the Society for Psychophysiological Research. Cape Cod, MA.
- Vendemia, J.M.C., Ragsdale, K.G., & Iranmanesh, A. (Jul 1995). Activity of the Hypothalamic-Pituitary-Adrenal Axis and Bendorphin Secretary Dynamics in Men Habituated to Cigarette Smoking. Poster presented at the 35th Annual Meeting of the Society for Psychophysiological Research. Toronto, Canada.
- Crawford, H.J., Knebel, T.F., Vendemia, J.M.C., Kaplan, L., & Ratcliff, B. (April 1995). *EEG Activation Patterns During Tracking and Decision-Making Tasks: Differences Between Low and High Sustained Attention Adults.* Paper presented at the 8th International Symposium on Aviation Psychology. Columbus, OH.
- Coplin, J. M. (i.e., Vendemia, J.M.C), Knebel, T. F., & Crawford, H.J. (October 1994). Cold Pressor Pain: EEG Topographical Differences Before and During Dips as Moderated by Cognitive Variables. Poster presented at the 34th Annual Meeting of the Society for Psychophysiological Research. Atlanta, GA.
- Crawford, H.J., Knebel, T., Coplin, J., Fulkerson, B., Scanlon, J., Sawyer, J., & Houzouris, N. (October 1994). *EEG*Topographic Map Differences in High and Low Sustained-Attention Adults: Tracking Tasks. Poster presented at the 34th Annual Meeting of the Society for Psychophysiological Research. Atlanta, GA.
- Crawford, H.J., Knebel, T., & Coplin, J. (October 1994). *Hypnotic Analgesia is no Longer a Paradox: Neurophysiological and Cognitive Process Explored.* Presentation, In A. Tellegen (Chair), Celebrating E. R. "Jack" Hilgard's 90th birthday: On individual differences in hypnotic ability and one individual's difference to the study of hypnosis, Symposium conducted at the 45th Annual Scientific Program of the Society for Clinical and Experimental Hypnosis. SanFrancisco, CA.
- Coplin, J. M., Lanter, J. J., & Ledger, G. J. (April 1993). *The Quantification of Wandering Behavior in Alzheimer's Patients*. Paper presented at the spring convention of the Virginia Psychological Association. Emerald Isle, VA.
- Coplin, J. M., Harrison, D. W., & Lanter, J. J. (April 1992). The Effect of Light on Unilateral Stroke Patients in a Dichotic Listening Task: A Preliminary Report. Paper presented at the Spring Convention of the Virginia Psychological Association. Emerald Isle, VA.
- Bunce, V. L., Coplin, J. M., & Harrison, D. W. (June 1991). *Child- or Adult- Directed Speech and Esteem: Effects on Performance and Arousal in Elderly Adults.* Poster presented at the Third Annual American Psychological Society Convention. Washington, DC.

## **PROFESSIONAL SERVICE:**

#### **Academic Service**

Jul 2020-present Member. Diversity and Inclusion Committee Member.

Oct 2020-Nov 2020 Member. Ad hoc Committee on the Strom Thurman Building Initiative

Jun 2020-present Web Information Delivery Designer. Diversity Committee.

Apr 30, May 14, 2020 Speaker. Admitted Student Day Events.

Jun 2020 Caller. Continuing Student Outreach Initiative. Student Success Center.

Sep 2018-Feb 2019 Member. Planning Committee for the the 2019 IMB Conference, "Executive Function in Mind

and Brain".

2018-present Member. Experimental Program Webpage Committee. As part of the Experimental Program

Webpage Committee I created several possible configurations for the site. I completed the

most important part of the redesign in 2019 by creating a Blackboard Website for Graduate Students in the Experimental Program that contains all of the Program forms and Handbooks. This Blackboard Site contains convenient and ready access to all important program information to our students in one location.

	information to our students in one location.
Nov 2019-Mar 2020	Member. Ad Hoc Committee on Senate Voting Technology.
Jul 2019-Jul 2022	Member. Faculty Advisory Committee.
Jul 2018-Jul 2020	Senator. Faculty Senate.
Jan 2014	<i>Keynote Speaker.</i> The USC Junior Science & Humanities symposium (JSHS) sponsored by the U. S. Army, Navy, and Air Force. I spoke to 200 High School Students, 50 high school teachers, and about 30 USC, Industry, Government, and Military Judges.
Jul 2013 -Jul 2014	Member. Faculty Senate Steering Committee.
Jul 2013-Jul 2014	Member. Academic Liaison Committee.
Jul 2013-Jul 2014	Chair. Faculty Advisory Committee.
Jul 2012-Jul 2015	Member. Faculty Advisory Committee.
Jul 2011-Jul 2013	Senator. Faculty Senate.
2011	Research Program Consultant. USC Department of Neurosurgery.
Aug 2010-Aug 2011	Program Director. Graduate Program in Experimental Psychology.
Aug 2009- Jul 2011	Member. Faculty Senate Steering Committee.
Aug 2009-Jul 2011	Chair. University Committee, Courses and Curricula.
2007-2014	<i>Director</i> . Center for Advanced Technologies for the Detection of Deception. Director of CATDD, Committee.
2007-2015	Steering Committee. Administrative Position. McCausland Center. McCausland Center, Meeting.
Oct 31, 2007	<i>Member</i> . Department Committee. Department of Psychology. Undergraduate Curriculum Committee, Committee.
Oct 31, 2007	<i>Member</i> . Department Committee. Department of Psychology. Clinical Neuroscience Search Committee, Committee.
Sep 11, 2006	Member. Research Opportunity Program standing subcommittee. University of South Carolina, Office of Research and Health Sciences. Research Opportunity Program.
2006-2017	IRB Representative. Science and Engineering Fair. University of South Carolina. Science and Engineering Fair, Committee.
2005-2008	Judge. Science and Engineering Fair. University of South Carolina. Science and Engineering Fair.
Oct 8, 2004	Speaker. USC College of Liberal Arts National Advisory Council. USC College of Liberal Arts. Science Presentation, Neuroscientific Detection of Deception.
Oct 5, 2004	Speaker. Small Business and Innovative Technologies. USC, Office of Research and Health Sciences. Joining Academic and Community Needs, Detection of Deception: Real World Applications From the Laboratory to the Streets.
Jan 2004-2016	Reviewer. International Society for Neuronal Regulation. Journal of Neurotherapy.

Ad Hoc Reviewer. Grant. National Science Foundation. National Science Foundation.

Oct 2002

Oct 2002 Ad Hoc Reviewer. Grant Review. Dartmouth College. Institute for Security Technology Studies.

Nov 11, 2001 Ad Hoc Reviewer. Journal. American Psychological Association. Journal of Experimental Psychology.

Nov 2001-Dec 2017 Editor, Science and Technologies. Journal American Polygraph Association. Polygraph

Mar 29, 2000 Speaker. Sagan Society. University of Georgia. The Psychology of Cults, The Psychology of Cults.

# **Professional Service**

Nov 2013	Moderator. External Review for Department of Homeland Security Border's Project. Reviewed unclassified and classified aspects of the Avatar Project at the University of Arizona and prepared a brief for the Department of Homeland Security on the program's viability.
2013-present	Editorial Board. Journal of Integrative Psychology and Therapeutics.
Oct 2011	Extended Expert Brief. U.S. Department of Defense, Counterintelligence Field Activity. Instructional Briefing on Alternative Technologies. Instructional Presentation to members of Singapore's Ministry of Defense. regarding the major developments in credibility assessment technologies related specifically to fMRI and EEG.
Dec 10, 2007	Participant. Working Group. The American Association for the Advancement of Science. Symposium and Working Meeting: Rights and Responsibilities: Scientific Associations and International Human Rights Norms.
Nov 27, 2007	Sub-Committee on Screening Group Leader. Steering Committee. U.S. Department of Defense, Defense Academy for Credibility Assessment. Draft Review for Credibility Assessment Research Agenda, Committee.
Oct 14, 2007	Participant. Science Advocacy Training. American Psychology Association, Science Directorate. APA Science Leadership Conference.
Sep 15, 2007	Sub-Committee Screening Environments. Steering Committee. U.S. Department of Defense, Defense Academy for Credibility Assessment. Draft Session for Credibility Assessment Research Agenda, Sub-Committee Draft on Screening Environments.
Mar 22, 2007	Speaker. Group Leader for Screening of Scenarios. Steering Committee. U.S. Department of Defense, Defense Academy for Credibility Assessment. Summit for Credibility Assessment, Research in the Area of Screening Scenarios.
Mar 14, 2007	Planning Committee, Speaker. Steering Committee. U.S. Department of Defense, Defense Academy for Credibility Assessment. Planning Session for May Summit, Committee.
Jul 25, 2006	Extended Expert Brief. U.S. Department of Defense Polygraph. Instructional Briefing on Alternative Technologies. Instructional presentation to representatives from the Ministry of Defense, Singapore, specifically targeting deception research utilizing fMRI technology.
Jul 11, 2006	Extended Expert Brief. U.S. Department of Defense Polygraphic Institute. Intructional Briefing on Alternative Technologies, Instructional Presentation to representatives from Israeli Secret Service specifically targeting polygraph examination test design.
Mar 10, 2006	Speaker. Reading Minds: Lie Detection, Neuroscience, Law, and Society. Stanford Center for Law and the Biosciences, part of the Stanford Program in Law, Science, & Techno. The Science of Lie Detection.
Oct 17, 2005	Speaker. Dinner Series on Science. Mensa. After Dinner Speech, History and the Art of Deception.

Sep 28, 2005	Speaker. Second Annual Research Forum. USC, Provost's Advisory Committee and the Office of Research and Health Science. Success in Grant Writing, Motivation, Perseveration, Details, Contacts, and Ego: The B-Side of Writing Grants.
Jul 25, 2005	Expert Brief. Briefing. U.S. Department of Defense Polygraph Institute. House Permanent Select Committee on Intelligence, Status of Deception Detection with Alternative Technologies.
Jul 8, 2005	Panel. Cognitive Performance 2005. Anteon Corporation, United States Army. Cognitive Performance in Man in the Loop Operations.
Jun 18, 2005	<i>Brief</i> . APA Congressional Meeting. American Psychological Association. Instructional Briefing on Alternative Technologies, Visitation with the Senior Legislative & Federal Affairs Officer, Science Public Policy Office of the American Psychological Association and staffers from Lindsay Graham's office regarding fMRI technology and detection of deception at USC.
May 17, 2005	Testimony to Congress. Congressional Testimony. American Psychological Association. Oral Testimony of Jennifer Vendemia, Ph.D. on behalf of the American Psychological Association, United States Senate Committee on Appropriations, Subcommittee on Defense, The Honorable Ted Steven, The American Psychological Association to the Senate Subcommittee on Defense Appropriations regarding defense appropriations to the behavioral sciences for 2005.
Mar 15, 2005	Extended Expert Brief. Extended Brief. U.S. Department of Defense Counterintelligence Field Activity. Instructional Briefing on Alternative Technologies, Instructional Presentation to the Director of Behavioral Sciences Department of Defense Counter Intelligence Field Activity and the Senior Legislative Federal Affairs Officer of the Science Public Policy Office of the Impact of Religious Upbringing and Cultural Influences on Deceptive behavior, and cognitive constructs such as memory and attention on brain waves related to deceptive behavior.
Feb 15, 2005	Discussant. London Science Museum Dana Centre. Naked Science: The Truth Behind Lie Detection, Panel Discussion with Tor Butler-Cole and Dr. Paul Matthews at the London Science Museum Dana Centre regarding the ethicality of advanced technology applications in the detection of deception. This debate was open to the public, and is maintained in the Dana Centre's public Web Archives for reference.
Feb 6, 2005	Ad Hoc Reviewer. Grant Review. Department of Defense. Agency Review, Concealed Information Paradigm with fMRI Dependent Measure.
Jan 2005	Written Brief. Office of Science and Technology Policy of the President. Outline of Deception Detection Research Agenda, Summary of the scientific potential for alternative technologies in the detection of deception for the periods between 2005-2007, 2007-2010, 2010-2015 for the Assistant Director for the Social, Behavioral and Educational Sciences at the Office of Science and Technology Policy.
Jan 2005	Extended Expert Brief. U.S. Department of Defense, Counterintelligence Field Activity. Instructional Briefing on Alternative Technologies, Instructional Presentation to the Chief, Credibility Assessment at Behavioral Sciences Department regarding the major developments in credibility assessment technologies including thermal imaging, event-related potentials, and functional magnetic resonance imaging.
Nov 5, 2004	Speaker and Panel. DecDet Fall Workshop. Georgetown University. Advanced Theoretical Models of Deception, Models of Deceptive Behavior.
Jun 15, 2003	Speaker and Discussant. Intelligence Technology Innovation Center Workshop. MITRE Corporation, U.S. Department of Defense. Analyst of the Future, Neuroscientific Modeling of Deception with HD-ERP and fMRI.
Jan 15, 2003	Extended Expert Brief. U.S. Department of Defense, National Security Agency. Credibility Assessment, Instructional Presentation and Compiled Bibliography/Literature Review to the Technical Director of Polygraph, U.S. Department of Defense, National Security Agency

regarding alternative technologies in the field of credibility assessment including voice stress analysis, pupillometry and eye-tracking, thermal imaging, exhaled gases, functional magnetic resonance imaging, event-related potentials, laser vibrommetry, and infrared.

## **COURSES TAUGHT**

**Undergraduate: Graduate:** Introduction to Psychology Cognitive Neuroscience Introduction to Psychology (Honors) Cognitive Neuroscience Laboratory Neuroanatomy for the Cognitive Neurosciences Cognitive Psychology **Psychological Statistics** Ethics/Research & Teaching Psychology II Physiological Psychology College Teaching of Psychology Cognitive Neuroscience Laboratory in EEG/ERP and fMRI Cognitive Neuroscience Laboratory Quantitative Methods for Behavioral Data II Neuroscience of Deception

## **MEMBERSHIP ON STUDENT COMMITTEES:**

Undergraduate Senior Thesis: Lindsay K. Morris (chair)	Comprehensive Exams:  Laura Baucum (Chair)  Michelle Phillips (Chair)  Scott Meek (Chair)  Carmen Sanchez (Reader)  Alex Reynolds (Chair)  Corey Boswell (Chair)  Matthew Facciani (Chair)  Jongwan Kim (Reader)
	Veena Nair (Reader)
Masters Thesis: Corey P. Boswell (chair) Thomas Northrup (reader) Eric Green (Reader) Scott Meek (Chair) Shaughna Bishop (Reader) Patricia Anne Wright (Reader)	Doctoral Dissertation: Robert F. Buzan (Chair) Stephanie Simon-Dack (Chair) James M. Nye (Chair) Alexandrea M. Reynolds (Chair) Mike McCall (Chair) Michelle Phillips (Chair) Veena Nair (Reader) Wesley Cole (Reader) Adam Craig (Reader) Melita Stancil (Reader) Joanna Lau (Reader)