

# Anna Woodcock, Ph.D.

## Education

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**Ph.D., Social Psychology.** Purdue University, 2012

Advisor: Dr. William G. Graziano

Dissertation Topic: *Implicit Ingroup Biases and Performance Under Threat: Do Successful Counterstereotypic Exemplars Help or Harm?*

**M.A., Experimental Psychology.** California State University, San Marcos (CSUSM), 2004

Advisor: Dr. P. Wesley Schultz

Thesis topic: *The Role of Self-Efficacy in Stereotype Threat*

**B.A., Psychology.** Macquarie University, NSW, Australia, 1997

## Research Interests

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My research interests lie in the broad areas of diversity, prejudice, and stereotyping. Specifically, I am interested in the contextual factors that promote and reinforce social disparities such as the underrepresentation of women and minorities in science, technology, engineering, and mathematics (STEM) fields. My research focusses on 1) the processes by which identity threat and identity balance operate across time, 2) psychological interventions to increase interest, performance, and persistence in STEM, 3) the role of identity and managing stereotypically incompatible identities on a STEM career, and 4) the role of person and thing orientations in academic choices and success.

## Active Research Support

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- Woodcock, A., & Haddad, K. (2020-2023). Families for STEM Success. National Institutes of Health, \$827,416.
- Schultz, P.W., & Woodcock, A. (2019-2024). Becoming a Scientist: A Longitudinal Study of Identity Balance and the Persistence of Hispanic Undergraduate Students in Engineering and Biological Sciences. National Science Foundation \$1,900,000.
- Schultz, P.W., Woodcock, A., & Hernandez, P.R. (2017-2019) Developing a Measure of STEM Identity and Balance \$300,000. National Science Foundation, \$300,000.
- Hernandez, A. (2016-2021) Researcher. ACCEPT: Aligning the Common Core for English learners. U.S. Department of Education. \$ 2,560,603

## Peer Reviewed Publications

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Pulvers, K., Ridenour, C., Woodcock, A., Savin, M. J., Holguin, G., Hamill, S., & Romero, D. R. (2018). Marijuana use among adolescent multiple tobacco product users and unique risks of dual tobacco and marijuana use. *Drug and Alcohol Dependence*. 10.1016/j.drugalcdep.2018.04.031

- Hernandez, P.R., Woodcock, A, Estrada, M, & Schultz, P.W. (2018). Undergraduate research experiences broaden diversity in the scientific workforce. *BioScience*, *68*, 204-211. doi: 10.1093/biosci/bix163
- Hernandez, P.R., Estrada, M, Woodcock, A, & Schultz, P.W. (2017). Protégé perceptions of high mentorship quality depends on shared values more than on demographic match. *The Journal of Experimental Education*, *83*(3), 450-468. doi: 10.1080/00220973.2016.1246405.
- Emami, A.S., Woodcock, A., Swanson, H.E., & Kapphahn, T., & Pulvers, K. (2016). Distress tolerance is linked to unhealthy eating through pain catastrophizing, *Appetite*, *107*, 454-459. doi: 10.1016/j.appet.2016.08.119
- Bairaktarova, D. & Woodcock, A. (2016). Engineering student's ethical awareness and behavior: A new motivational model. *Science and Engineering Ethics*.
- Woodcock, A., Hernandez, P.R., & Schultz, P.W. (2016). Diversifying science: Programs weaken the effect of chronic stereotype threat on maladaptive achievement goals. *Social Psychological and Personality Science*, *2*, 184-192. doi: 10.1177/1948550615608401.
- Bairaktarova, D. & Woodcock, A. (2015). Engineering ethics education: Aligning practice and outcomes. *IEEE Communications Magazine*. *53*(11):18-22
- Woodcock, A. & Bairaktarova, D. (2015). Gender -biased self-evaluations of first-year engineering students. *Journal of Women and Minorities in Science and Engineering*, *21*, 255-269. doi: 10.1615/JWomenMinorScienEng.2015013125
- Branch, S. E., Woodcock, A., & Graziano, W.G. (2015). Person orientation and encouragement: Predicting interest in engineering research. *Journal of Engineering Education*, *104*, doi: 10.1002/jee.20068
- Estrada, M., Woodcock, A., & Schultz, P.W. (2014). Tailored Panel Management: A theory-based approach to building and maintaining participant commitment to a longitudinal study. *Evaluation Review*. *38*, 3-28. doi: 10.1177/0193841X14524956
- Monteith, M.J., Woodcock, A., & Lybarger, J. E. (2013). Automaticity and control in stereotyping and prejudice: The revolutionary role of social cognition across three decades of research. *Oxford Handbook of Social Cognition*.
- Woodcock, A., & Monteith, M.J. (2013). Creating a link with the self to combat implicit bias. *Group Processes and Intergroup Relations*. *16*, 445—461. doi: 10.1177/1368430212459776.
- Woodcock, A., Graziano, W. G., Branch, S. E., Ngambeki, I., & Evangelou, D. (2013). Person and thing orientations: Psychological correlates and predictive utility. *Social Psychological and Personality Science*, *4*, 117 - 124. doi: 10.1177/1948550612444320
- Hernandez, P. R., Schultz, P. W., Estrada, M., Woodcock, A., & Chance, R. C. (2013). Sustaining optimal motivation: A longitudinal analysis of personal and contextual predictors of achievement goals. *Journal of Educational Psychology*, *105*, 89-107. doi: 10.1037/a0029691
- Woodcock, A., Hernandez, P. R., Estrada, M., & Schultz, P. W. (2012). The consequences of chronic stereotype threat: Domain disidentification and abandonment. *Journal of Personality and Social Psychology*, *103*, 635-646. doi: 10.1037/a0029120
- Woodcock, A., Graziano, W. G., Branch, S. E., Ngambeki, I., & Evangelou, D. (2012). Engineering students' beliefs about research: Sex differences, personality, and career plans. *Journal of Engineering Education*, *101*, 495-511.

- Estrada, M., Woodcock, A., Hernandez, P. R., & Schultz, P. W. (2011). Toward a model of social influence that explains minority student integration into the scientific community. *Journal of Educational Psychology, 103*, 206-222. doi: 10.1037/a0020743.
- Graziano, W. G., Habashi, M. M., & Woodcock, A. (2011). Exploring and measuring differences in person-thing orientation. *Personality and Individual Differences, 51*, 28-33. doi: 10.1016/j.paid.2011.03.004.
- Schultz, P.W., Hernandez, P.R., Woodcock, A., Estrada-Hollenbeck, M., Chance, R.C., Aguilar, M.A., & Serpe, R. (2011). Patching the pipeline: Reducing educational disparities in the sciences through minority training programs. *Educational Evaluation and Policy Analysis, 33*, 95-114. doi: 10.3102/0162373710392371.
- Monteith, M. J., & Woodcock, A. (2009). Modern forms of prejudice. In Levine, J., & Hogg, M. (Eds.) *Encyclopedia of group processes and intergroup relations*. Thousand Oaks, CA: Sage.
- Monteith, M. J., Lybarger, J. E. & Woodcock, A. (2009). Schooling the cognitive monster: The role of motivation in the regulation and control of prejudice. *Social and Personality Psychology Compass, 3*, 211-226.

### **Manuscripts Under Review**

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- Woodcock, A., & Schultz, P.W. (under review). The role of conformity in mask-wearing during COVID-19, *Public Health Reports*

### **Manuscripts in Preparation**

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- Rice, M.A., Nollen, N.L., Ahluwalia, A.S., Benowitz, N., Woodcock, A., & Pulvers, K. (in preparations) Effects of marijuana use on smokers switching to e-cigarettes in a randomized clinical trial.
- Woodcock, A., Schultz, P.W., Hernandez, P., & Hashemi, M. (under revision). Balancing stereotypically compatible and incompatible identities.
- Woodcock, A., Price, E., De Leon, C, Chen, R-J, & Andreason, C. (in preparation). Balanced Identity Design: A Framework for Understanding How Prospective Science Teachers Balance Identities as Both Teacher and Scientist
- Woodcock, A., Hernandez, P.R., Schultz, P.W. (in preparation). Ten Years of TheScienceStudy: Key Findings about Diversifying the Biomedical Sciences and Future Directions. *American Psychologist*.
- Woodcock, A., Graziano, W. G., (in preparation). *Person and thing orientations: Interest in and comprehension of orientation-congruent material*.
- Woodcock, A. (in preparation). *Implicit ingroup biases and performance under threat: Do successful counterstereotypic exemplars help or harm?*

### **Conference Proceedings**

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- Ramachandran, M., Bairaktarova, D., Woodcock, A., and Baweren, O. An Exploratory Study to Predict Ethical Awareness using Linguistics Inquiry and Word Count. *Proceedings of the 122th ASEE Annual Conference and Exposition*, June 13-17, 2015, Seattle, Washington.
- Bairaktarova, D. and Woodcock, A. The Role of Personality Factors in Engineering' students Ethical Decisions. *Proceedings of IEEE Conference on Engineering Ethics*, May 21- 23, 2014, Chicago, Illinois.

Bairaktarova D., Evangelou, D., Woodcock, A., Graziano, W.G. The Role of Personality Factors in Engineering Students Ethical Decisions. *Proceedings of 40th European Society for Engineering Education (SEFI) Annual Conference*, Thessaloniki, Greece, 23 – 26 September 2012.

### **Invited Talks**

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Summer 2020	Claremont Graduate University, “ <i>Combining Applied Social Psychology and Program Evaluation to Broaden Diversity in STEM</i> ”
Summer 2017	Gordon Research Conference on Undergraduate Biology Education Research!
Spring 2016	CSUSM OTRES Seminar Series. “ <i>Aligning Identities to Broaden Participation in STEM</i> ”
Fall 2014	Activist San Diego and the United Nations Association Panel: The Many Faces of Violence Against Women. Panelist: “ <i>Implicit Gender Bias and Violence Against Women</i> ”
Fall 2013	University of Texas, Pan American, Awesome Investigator Research Hour. “ <i>Diversifying Science: Minority Training Programs and Why They Work</i> ”
Fall 2012	American Psychological Association, Women with Disabilities in STEM Education Research Agenda Development Project (WWDSE) Experts Workshop. Panelist: “ <i>Implicit Bias</i> ”
Spring 2010	Purdue University School of Engineering Education Seminar Series. “ <i>Examining the Exodus: Measuring Women’s Socialization into STEM</i> ”
Spring 2008	Purdue University Social Psychology Brownbag Series. “ <i>Exploring the Moderating Effects of Self-Efficacy on Stereotype Threat</i> ”
Fall 2005 & 2006	Palomar College: Information Sources and Resources (LT 120). “ <i>Finding, Using, and Presenting Statistics and Data Resources</i> ”

### **Selected Presentations**

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#### **2021**

Hernandez, A., Daoud, A., Woodcock, A., & Landin, K. (April 2021). *Field experiences of teacher candidates during COVID-19 school closures: Examining equity for underserved English Learners*. Paper accepted for presentation at the AREA 2021 Virtual Annual Meeting.

Rice, M., Nollen, N. L., Woodcock, A., Benowitz, N. L., Ahluwalia, J. S., & Pulvers, K. (2021, February). *Effect of marijuana use on smokers switching to e-cigarettes in a randomized controlled trial*. Poster accepted for presentation at the Society for Research on Nicotine and Tobacco, Baltimore, MD.

Blake, M., Gutierrez, D., Pedersen, R., Woodcock, A., & Schultz, W. (2021, April). *Me=math: A new writing intervention to promote math identity among women*. To be presented at the 2021 Western Psychological Association Virtual Convention.

Bonilla, A., K., Gomez, T., Michielsen, K., Jarrell, R., Woodcock, A., & Schultz, W. (2021, April). *When my primary goals clash with the goals of science*. To be presented at the 2021 Western Psychological Association (WPA) Virtual Convention.

#### **2020**

Woodcock, A., & Schultz, P.W., (December 2020), “*Tailored Panel Management: Maximizing participant response during COVID-19*.” EHR Core Research (ECR) 2020 Principal Investigator Meeting

- Blake, M., Gutierrez, D., Woodcock, A., & Schultz, W. (2020, December). *Me=math: A new writing intervention to promote math identity among women*. Poster presented at the 2020 CSUSM Student Research Showcase, San Marcos, CA.
- Woodcock, A., Haddad, K., & Hernandez. (October 2020). *"Families for STEM Success"* DPC DaTA Kick-Off Webinar
- Bonilla, A., Michielsen, K., Gomez, T., Jarrell, R., Woodcock, A., & Schultz, W. (2020, December). *What can science do for me?* Poster presented at the 2020 CSUSM Student Research Showcase, San Marcos, CA.
- Bonilla, A., Moreno, N., Woodcock, A., & Schultz, W. (2020, February). *Identity balance of female and male engineering students*. Poster presented at the 2020 Society for Personality and Social Psychology (SPSP) Annual Convention, New Orleans, Louisiana.
- Terry, K., Woodcock, A., & Schultz, W. (2020, February). *An extended hackathon increases computer science interest and self-efficacy among adolescent girls*. Poster presented at the 2020 Society for Personality and Social Psychology (SPSP) Annual Convention, New Orleans, Louisiana.
- Avilez, K., Andreason, C., Stevenson, H., Woodcock, A. & Hernandez, A. (2020, February). *The impact of bilingual instruction and training on increasing bilingual teacher identity and feelings of preparation in the classroom*. Poster presented at the 2020 Society for Personality and Social Psychology (SPSP) Annual Convention, New Orleans, Louisiana.

## 2019

- Bonilla, A., Lopez L., Malone, M., Maldonado, N., Maldonado, M., Woodcock, A. (2019, April). *Work-life conflict among underrepresented early career scientists*. Poster presented at the 2019 Western Psychological Association (WPA) Convention, Pasadena, California.
- Bonilla, A., Hambissa, C., Maldonado, N., Maldonado, M., & Woodcock, A. (2019, February). *Self-efficacy among underrepresented minorities*. Poster presented at the 2019 Society for Personality and Social Psychology (SPSP) Annual Convention, Portland, Oregon.
- Calva, A., Andreason, C., Woodcock, A., & Schultz, W. (2019, February). *Self-affirmation intervention to balance math identity in women*. Poster presented at the 2019 Society for Personality and Social Psychology (SPSP) Annual Convention, Portland, Oregon.
- Castillo, C., Hashemi, M., Hernandez, P.R., Yudin, D., Woodcock, A., & Schultz, W. (2019, February). *An individualized balanced measure of White and Hispanic STEM students*. Poster presented at the 2019 Society for Personality and Social Psychology (SPSP) Annual Convention, Portland, Oregon.
- Andreason, C., Moreno, N., Olsen, S., Woodcock, A., & Hernandez, A. (2019, February). *Fostering bilingual teacher identity in credential program students*. Poster presented at the 2019 Society for Personality and Social Psychology (SPSP) Annual Convention, Portland, Oregon.
- Moreno, N., Andreason, C., Woodcock, A., & Hernandez, A. (2019, February). *The role of GRIT in bilingual teacher training*. Poster presented at the 2019 Society for Personality and Social Psychology (SPSP) Annual Convention, Portland, Oregon.

## 2018

Bonilla, A., Lopez, L., Malone, M., Maldonado, M., Maldonado, N., Woodcock, A. (2018, November). *Intensive grant-writing workshops help early career scientists*. Poster presented at the 2018 CSUSM Student Research Showcase, San Marcos, CA.

Hambissa, C., Bonilla, A., Maldonado N., Maldonado M., Woodcock, A. (2018, May). *Funding among URM's in STEM*. Poster presented at the 25<sup>th</sup> Annual CSUSM Psychology Student Research Fair Poster Showcase, San Marcos CA

## 2017

Woodcock, A., Hernandez, P. R., Estrada, M., & Schultz, P. W. (February, 2017). *Broadening the scientific workforce through long-term high intensity undergraduate research experiences*. Paper presented at the annual Understanding Interventions conference, San Antonio, Texas.

## 2016

Hernandez, P. R., Woodcock, A., Estrada, M., Schultz, P. W. (February, 2016). *Undergraduate research experiences: A longitudinal assessment*. Paper presented at the annual Understanding Interventions conference, Philadelphia, PA.

Hernandez, I. A., Andreason, C., Quartucci, S., Nare, T., Shepherd, A., Woodcock, A., Hernandez, P. R., Estrada, M., Schultz, P. W. (2016, January). *Aligning identities to reduce stereotype threat*. Poster presented at the 17<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, San Diego, CA.

## 2015

Ramachandran, M, Bairaktarova, D, & Woodcock, A. (June, 2015). *Differences in ethical decision making between experts and novices: A comparative study*. Paper submitted for presentation at the 122<sup>nd</sup> annual American Society for Engineering Education conference, Seattle, WA.

Lawson, M. A., Woodcock, A., Johnson, A.M., Schultz, P. W., McGee, R., & Anderson, S M. (May, 2015). *Re-assessing what works-A novel approach to measuring efficacy and early findings from a broad intervention partnership*. Paper accepted for presentation at the 7<sup>th</sup> Annual Conference on Understanding Interventions, San Diego, CA.

Woodcock, A, Hernandez, P. R., & Schultz, P.W. (May, 2015). *Diversifying science: Programs weaken the effect of chronic stereotype threat on maladaptive achievement goals*. Paper accepted for presentation at the 7<sup>th</sup> Annual Conference on Understanding Interventions, San Diego, CA.

Woodcock, A, & Graziano, W.G. (May, 2015). *Diversifying STEM: Attracting person and thing-oriented people*. Poster accepted for presentation at the 7<sup>th</sup> Annual Conference on Understanding Interventions, San Diego, CA.

Woodcock, A., & Bairaktarova, D. (February, 2015). *Gender differences in engineering students' self-evaluations*. Poster presented at the 16<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, Long Beach, CA.

Watson, L.A., Audish, M.H., Huerta, M.A., Woodcock, A., Estrada, M., Hernandez, P.R., & Schultz, P.W. (February, 2015). *Patching the academic pipeline: Minority training programs impact success and persistence*. Poster presented at the 16<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, Long Beach, CA.

## 2014

- Hernandez, P. R., Estrada, M., Woodcock, A., & Schultz, P. W. (October, 2014). *Mentor qualities that matter: The importance of perceived (not demographic) similarity*. Poster presented at the 7th Annual Mentoring conference, Albuquerque, NM.
- Graziano, W.G., & Woodcock, A. (September, 2014). Interest and persistence *in STEM: The case for person and thing Orientations*. Poster presented at Integrating Cognitive Science with Innovative Teaching in STEM Disciplines conference, St. Louis, MO.
- Bairaktarova, D., & Woodcock, A. (June, 2014). *The role of motivation in engineering students' ethical decisions*. Paper presented at the 2014 IEEE International Symposium on Ethics in Engineering, Science, and Technology, Chicago, IL.
- Lawson, M. A., Woodcock, A., Johnson, A., Schultz, P. W., McGee, R., & Anderson, S. M. (May, 2014). *The endocrine network for undergraduate research and career development opportunities: A model for broad training partnerships*. Paper presented at the 6<sup>th</sup> Annual Conference on Understanding Interventions, Baltimore, MD.
- Hernandez, P. R., Woodcock, A., Estrada, M., Aguilar, Gonzales, B., Flores, L., Quartucci, S., & Schultz, P. W. (February, 2014). *Weathering the storm: STEM training programs buffer minority students from the negative outcomes, but not the experience, of stereotype threat*. Poster presented at the 15<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, Austin, TX.
- Woodcock, A., Graziano, W.G., Flores, L., & Gonzales, B. (February 2014). *Attracting person and thing oriented people to STEM*. Poster presented at the 15<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, Austin, TX.

## 2004 – 2013

Available upon request

### Teaching

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California State University San Marcos	Social Psychology Laboratory (PSYC 396)
California State University San Marcos	Graduate Statistics (PSYC 520)
California State University San Marcos	Intro. Statistics in Psychology (PSYC 220)
California State University San Marcos	Psychology of Prejudice (PSYC 333)
California State University San Marcos	Social Psychology (PSYC 332)
Claremont Graduate University	Quant. Analysis & Stats for Evaluation & Applied Research (EVAL 320)
Purdue University	Stereotyping & Prejudice (PSY 33500)

### Statistical Training

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Applied Regression	Purdue University
Factor Analytic Procedures	Purdue University
Multivariate Analysis in Organizational Research	Purdue University
Structural Equation Modeling	Purdue University
Fundamentals of Using R	The Georgia R School

Structural Equation Modeling (SEM) in Longitudinal Research	American Psychological Assoc. Adv. Institute
Hierarchical Linear Modeling (HLM)	Data Analysis Training Institute of Connecticut
Hierarchical Linear Modeling (HLM) Workshop	Scientific Software International
Longitudinal Research	The CALDAR/UCLA Summer Institute

### **Completed Research Support**

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- Ouyang, Y., Ochanji, M. & Woodcock, A. (2016-2019) Co-Pi. Inspiring commitment for a STEM career path through extended women's hackathon. National Science Foundation. \$1,199,971
- Schultz, P. W., & Woodcock, A. (2015—2018). Co-PI. IMAGE program research evaluation. American Society for Biochemistry and Molecular Biology. National Science Foundation. \$150,254
- Schultz, P. W., & Woodcock, A. (2012—2016). Co-PI. Minority access program evaluation. Endocrine Society. National Institute of General Medical Sciences. \$115,629
- CSUSM Faculty Development Grant (2014-2015). \$750
- American Psychological Association of Graduate Students (APAGS) Basic Psychological Research Grant — honorable mention (2011)
- Society for the Psychological Study of Social Issues (SPSSI) Grant-in-Aid Award, \$1,000 (2011)
  - Department of Psychological Sciences award match \$1,000 (2011)
- Society for the Psychological Study of Social Issues (SPSSI) Grant-in-Aid Award, \$900 (2010)
  - Department of Psychological Sciences award match \$900 (2010)
- Psychological Sciences Graduate Student Grant. Using Counter-Stereotypic Affirmation Training to Reduce the Impact of Stereotype Threat. \$1,500. (2008)
- Co-writer and data support: Capacity Building Grant for Associate Degree Registered Nursing (ADN). California Community College Chancellor's Office. \$390,000. Judith Elkhart (2006-2009) Director.
- Co-writer. A nationwide study of the RISE program. National Institutes of Health, National Institute of General Medical Sciences. R01-GM075316. \$1,770,120. Schultz, P. W. (2005-2009) PI.

### **Honors & Awards**

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2016	Understanding Interventions, Adolphus Toliver "Tol" Award. In recognition of exemplary work in understanding interventions that broaden participation in science careers.
2014	Understanding Interventions Travel Award (\$800). 6th Annual Conference on Understanding Interventions That Broaden Participation in Research Careers, Baltimore, MD.
2011	Understanding Interventions Travel Award (\$800). 4th Annual Conference on Understanding Interventions That Broaden Participation in Research Careers, Nashville, TN.
2009	SPSP Student Travel Award (\$500). Annual meeting of the Society for Personality and Social Psychology, Tampa, FL.
2004	CSUSM Student Travel Award. Annual meeting of the Society for Personality and Social Psychology, Austin, TX.
1989 & 1990	University of Western Sydney: CEO/Vice Chancellor's Letter to top students in B.A. program