

Jeffrey M Girard

Interdisciplinary Researcher

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Personal Statement

My research into *human behavior, personality, and psychopathology* takes a deeply interdisciplinary approach, drawing insights and tools from *social science, computer science, and data science*. In addition to serving as an interdisciplinary liaison and translator, I develop and validate computational tools for psychological inquiry.

Positions

- ♦ Postdoctoral Scholar, Carnegie Mellon University (*Computer Science*) 2018 – Present

Academic History

- ♦ Doctor of Philosophy, University of Pittsburgh (*Clinical Psychology*) 2013 – 2018
- ♦ Predoctoral Internship, University of Mississippi Medical Center (*Psychiatry*) 2017 – 2018
- ♦ Master of Science, University of Pittsburgh (*Clinical Psychology*) 2010 – 2013
- ♦ Bachelor of Arts, University of Washington (*Psychology and Philosophy*) 2005 – 2009

Research Funding

- ♦ Application Co-Author, National Science Foundation [IIS-1721667](#)
- ♦ Research Fellow, National Institutes of Health [R01-GM105004](#)
- ♦ Research Fellow, National Science Foundation [IIS-1418026](#)
- ♦ Research Fellow, National Institutes of Mental Health [R01-MH096951](#)
- ♦ Research Fellow, National Science Foundation [CNS-1205195](#)

Professional Honors

- ♦ Barlow Speakership Award, University of Mississippi Medical Center 2017
- ♦ Wiggins Student Award, Society for Interpersonal Theory and Research 2017
- ♦ Bassell Student Award, University of Pittsburgh (*Clinical Psychology*) 2017
- ♦ Outstanding Presenter Award, University of Pittsburgh (*Grad Expo*) 2017
- ♦ Outstanding Reviewer Award, IEEE Automated Face & Gesture Recognition 2015
- ♦ E.B. Huey Award, University of Pittsburgh (*Clinical Psychology*) 2014

Journal Articles

- ♦ **Girard, J.M.**, & Wright, A.G.C. (in press). DARMA: Software for dual axis rating and media annotation. *Behavior Research Methods*. Advance online publication. doi: [10.3758/s13428-017-0915-5](https://doi.org/10.3758/s13428-017-0915-5)
- ♦ Shepherd, L.M., Sly, K.F., & **Girard, J.M.** (2017). Comparison of comprehensive and abstinence-only sexuality education in young African American adolescents. *Journal of Adolescence*. *61*, 50–63.
- ♦ **Girard, J.M.**, Wright, A.G.C., Beeney, J.E., Scott, L.N., Lazarus, S.A., Stepp, S.D., & Pilkonis, P.A. (2017). Interpersonal problems across levels of the psychopathology hierarchy. *Comprehensive Psychiatry*. *79*, 53–69.
- ♦ Ross, J.M., **Girard, J.M.**, Wright, A.G.C., Beeney, J.E., Scott, L.N., Hallquist, M.N., Lazarus, S.A., Stepp, S.D., & Pilkonis, P.A. (2017). Momentary patterns of covariation between specific affects and interpersonal behavior: Linking relationship science and personality assessment. *Psychological Assessment*. *29*(2), 123–134.
- ♦ McDuff, D., **Girard, J.M.**, & el Kaliouby, R. (2017). Large-scale observational evidence of cross-cultural differences in facial behavior. *Journal of Nonverbal Behavior*. *41*(1), 1–19.
- ♦ **Girard, J.M.**, & Cohn, J.F. (2016). A primer on observational measurement. *Assessment*. *23*(4), 404–413.
- ♦ **Girard, J.M.**, Cohn, J.F., Jeni, L.A., Sayette, M.A., & De la Torre, F. (2015). Spontaneous facial expression in unscripted social interactions can be measured automatically. *Behavior Research Methods*. *47*(4), 1136–1147.
- ♦ **Girard, J.M.**, Cohn, J.F., & De la Torre, F. (2015). Estimating smile intensity: A better way. *Pattern Recognition Letters*. *66*, 13–21.
- ♦ Fairbairn, C.E., Sayette, M.A., Amole, M., Dimoff, J.D., Cohn, J.F., & **Girard, J.M.** (2015). Speech volume indexes gender differences in the social-emotional effects of alcohol. *Experimental & Clinical Psychopharmacology*. *23*(4), 255–264.
- ♦ **Girard, J.M.**, & Cohn, J.F. (2015). Automated audiovisual depression analysis. *Current Opinion in Psychology*, *4*, 75–79.
- ♦ **Girard, J.M.** (2014). CARMA: Software for continuous affect rating and media annotation. *Journal of Open Research Software*, *2*(1), e5.
- ♦ Zhang, X., Yin, L., Cohn, J.F., Canavan, S., Reale, M., Horowitz, A., Liu, P., & **Girard, J.M.** (2014). BP4D-Spontaneous: A high-resolution spontaneous 3D dynamic facial expression database. *Image and Vision Computing*, *32*(10), 692–706.
- ♦ **Girard, J.M.**, Cohn, J.F., Mahoor, M.H., Mavadati, S.M., Hammal, Z., & Rosenwald, D.P. (2014). Nonverbal social withdrawal in depression: Evidence from manual and automatic analyses. *Image and Vision Computing*, *32*(10), 641–647.

Chapters and Book Sections

- ♦ **Girard, J.M.**, Cohn, J.F., Mahoor, M.H., Mavadati, S.M., Hammal, Z., & Rosenwald, D.P. (in press). Nonverbal social withdrawal in depression: Evidence from manual and automatic analyses. In P. Ekman & E. Rosenberg (Eds.), *What the face reveals: Basic and applied studies of spontaneous expression using the facial action coding system (FACS)* (3rd ed.). New York, NY: Oxford University Press.

- ◆ **Girard, J.M.** & Cohn, J.F. (in press). Automated analysis of depressed behavior [Afterword]. In P. Ekman & E. Rosenberg (Eds.), *What the face reveals: Basic and applied studies of spontaneous expression using the facial action coding system (FACS)* (3rd ed.). New York, NY: Oxford University Press.
- ◆ **Girard, J.M.**, Cohn, J.F., Jeni, L.A., Sayette, M.A., & De la Torre, F. (in press). Spontaneous facial expression in unscripted social interactions can be measured automatically. In P. Ekman & E. Rosenberg (Eds.), *What the face reveals: Basic and applied studies of spontaneous expression using the facial action coding system (FACS)* (3rd ed.). New York, NY: Oxford University Press.
- ◆ **Girard, J.M.** & Cohn, J.F. (in press). Generalizability of automated AU detection [Afterword]. In P. Ekman & E. Rosenberg (Eds.), *What the face reveals: Basic and applied studies of spontaneous expression using the facial action coding system (FACS)* (3rd ed.). New York, NY: Oxford University Press.

Conference Proceedings

NB: In the field of computer science, original research papers about completed studies are submitted to conferences. Submissions go through a full peer-review process and the accepted papers are published as conference proceedings.

- ◆ Valstar, M., Sanchez-Lozano, E., Cohn, J.F., Jeni, L.A., **Girard, J.M.**, Zhang, Z., Yin, L., & Pantic, M. (2017). FERA 2017 - Addressing head pose in the third facial expression recognition and analysis challenge. *Proceedings of the IEEE Conference on Automatic Face & Gesture Recognition* (pp. 839–847).
- ◆ **Girard, J.M.** & McDuff, D. (2017). Historical heterogeneity predicts smiling: Evidence from large-scale observational analyses. *Proceedings of the IEEE Conference on Automatic Face & Gesture Recognition* (pp. 719–726).
- ◆ **Girard, J.M.**, Chu, W.S., Jeni, L.A., Cohn, J.F., De la Torre, F., & Sayette, M.A. (2017). Sayette group formation task (GFT) spontaneous facial expression database. *Proceedings of the IEEE Conference on Automatic Face & Gesture Recognition* (pp. 581–588).
- ◆ Zhang, Z., **Girard, J.M.**, Wu, Y., Zhang, X., Liu, P., Ciftci, U., Canavan, S., Reale, M., Horowitz, A., Yang, H., Cohn, J.F., Ji, Q., & Yin, L. (2016). Multimodal spontaneous emotion corpus for human behavior analysis. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition* (pp. 3438–3446).
- ◆ Valstar, M.F., Almaev, T., **Girard, J.M.**, McKeown, G., Mehu, M., Yin, L., Pantic, M., & Cohn, J.F. (2015). FERA 2015 - Second Facial Expression Recognition and Analysis Challenge. *Proceedings of the IEEE Conference on Automatic Face & Gesture Recognition* (pp. 1–8).
- ◆ **Girard, J.M.**, Cohn, J.F., Jeni, L.A., Lucey, S., & De la Torre, F. (2015). How much training data for facial action unit detection? *Proceedings of the IEEE Conference on Automatic Face & Gesture Recognition* (pp. 1–8).
- ◆ **Girard, J.M.**, Cohn, J.F., Mahoor, M.H., Mavadati, S.M., & Rosenwald, D.P. (2013). Social risk and depression: Evidence from manual and automatic facial expression analysis. *Proceedings of the IEEE Conference on Automatic Face & Gesture Recognition* (pp. 1–8).
- ◆ Jeni, L.A., **Girard, J.M.**, Cohn, J.F., & De la Torre, F. (2013). Continuous AU intensity estimation using localized, sparse facial feature space. *Proceedings of the IEEE Conference on Automatic Face & Gesture Recognition* (pp. 1–7).

- ◆ **Girard, J.M.**, & Cohn, J.F. (2011). Criteria and metrics for thresholded AU detection. *Proceedings of the IEEE Conference on Computer Vision* (pp. 2191–2197).

Invited Talks

- ◆ **Girard, J.M.** (2017, April). *Interdisciplinary exchange in affective computing: Case studies in automated face analysis*. Invited presentation at the meeting of the Society for Affective Science (PCAC), Boston, MA.
- ◆ **Girard, J.M.** (2017, April). *Frontiers where psychology meets affective computing*. Invited presentation at MIT Media Lab, Cambridge, MA.
- ◆ **Girard, J.M.** (2017, January). *Leveraging technology to study and assess depression*. Invited presentation at Microsoft Research, Redmond, WA.
- ◆ **Girard, J.M.** (2016, September). *Leveraging technology for psychological science*. Invited presentation at the meeting of the Psi Chi Honor Society (University of Pittsburgh Chapter), Pittsburgh, PA.

Conference Talks

- ◆ **Girard, J.M.**, Amole, M.C., Cyranowski, J.M., Swartz, H.A., Cohn, J.F., & Wright, A.G.C. (2017, July). *Associations between spontaneous head pose and the dimensions of interpersonal behavior*. Paper presented at the meeting of the Society for Interpersonal Theory and Research, Pittsburgh, PA.
- ◆ Ross, J.M., **Girard, J.M.**, Wright, A.G.C., Beeney, J.E., Scott, L.N., Hallquist, M.N., Lazarus, S.A., Stepp, S.D., & Pilkonis, P.A. (2017, July). *Momentary patterns of covariation between specific affects and interpersonal behavior: Linking relationship science and personality assessment*. Paper presented at the meeting of the Society for Interpersonal Theory and Research, Pittsburgh, PA.
- ◆ Amole, M.C., Herman, L., Cyranowski, J.M., **Girard, J.M.**, Wright, A.G.C., & Swartz, H.A. (2017, June). Interpersonal behaviors in depressed mothers and their children: Impacts of maternal childhood emotional abuse. In J.M. Cyranowski (Chair), *History of Childhood Emotional Abuse among Depressed Mothers: Impacts and IPT Treatment Implications*. Symposium conducted at the meeting of the International Society of Interpersonal Psychotherapy, Toronto, Canada.
- ◆ Pacella, M.L., Suffoletto, B.P., **Girard, J.M.**, Wright, A.G.C., Kurtz, R., & Callaway, C.W. (2017, May). *The association between daily posttraumatic stress symptoms and physical pain over the first 14-days after injury: An experience sampling study*. Paper presented at the meeting of the Society for Academic Emergency Medicine, Orlando, FL.
- ◆ McDuff, D., & **Girard, J.M.** (2017, April). *Large-scale observational evidence of cross-cultural differences in facial behavior*. Paper presented at the Pre-conference on Affective Computing at the meeting of the Society for Affective Science, Boston, MA.
- ◆ **Girard, J.M.**, Wright, A.G.C., Stepp, S.D., & Pilkonis, P.A. (2017, April). Momentary assessment of depressed interpersonal behavior during romantic conflict. In K.M. Thomas (Chair), *Real-time assessment of interpersonal and affective relationship dynamics*. Symposium conducted at the meeting of the Midwestern Psychological Association, Chicago, IL.

- ◆ **Girard, J.M.** (2017, March). *Large-scale observational evidence of cross-cultural differences in facial behavior*. Paper presented at the University of Pittsburgh Grad Expo, Pittsburgh, PA.
- ◆ **Girard, J.M.**, Wright, A.G.C., Stepp, S.D., & Pilkonis, P.A. (2016, May). Interpersonal dynamics in couples with personality pathology. In M.N. Shiota (Chair), *Synchrony, Symmetry, and Integration: Dynamical Approaches to Social Interaction*. Symposium conducted at the meeting of the Association for Psychological Science, Chicago, IL.
- ◆ Wright, A.G.C., Ross, J.M., **Girard, J.M.**, Scott, L.M., Beeney, L.N., Hallquist, J.E., Stepp, S.D., & Pilkonis, P.A. (2015, September). Personality pathology and momentary interpersonal behavior during conflict resolution. In Wright, A.G.C. (Chair), *Interpersonal processes in personality disorders*. Symposium conducted at the meeting of the Society for Research in Psychopathology, New Orleans, LA.
- ◆ **Girard, J.M.** (2015, September). *Automated multimodal analysis of depression symptom severity*. Paper presented at the AAAC Conference on Affective Computing and Intelligent Interaction, Xi'an, China.
- ◆ **Girard, J.M.** (2014, November). *Perceptions of interpersonal behavior are influenced by gender, facial expression intensity, and head pose*. Paper presented at the ACM International Conference on Multimodal Interaction, Istanbul, Turkey.
- ◆ **Girard, J.M.**, & Cohn, J.F. (2014, May). Nonverbal social withdrawal in depression. In Girard, J.M. & Cohn, J.F. (Chairs), *Affective Computing for the Assessment of Depression*. Symposium conducted at the Association for Psychological Science Convention, San Francisco, CA.

Conference Posters

- ◆ **Girard, J.M.**, Fosco, W.D., Sarver, D.E., Govey, M.A., & Lim, C.S. (2018, April). *Associations between disordered eating and attention problems in youth with obesity*. Poster presented at the meeting of the Society of Pediatric Psychology, Orlando, FL.
- ◆ Wulf, T.M., **Girard, J.M.**, Bruni, P., Cohn, J.F., & Benight, C. (2017, November). *Nonverbal indicators of acute distress in women with PTSD*. Poster presented at the meeting of the International Society for Traumatic Stress Studies, Chicago, IL.
- ◆ Lim, C.S., **Girard, J.M.**, Shepherd, L., Sandridge, S., Herring, W., & Lanciers, S. (2017, October). *Associations between depressive symptoms and disordered eating in youth who are obese*. Poster presented at ObesityWeek, Washington, DC.
- ◆ **Girard, J.M.**, Wright, A.G.C., Beeney, J.E., Lazarus, S.A., Scott, L.N., Stepp, S.D., & Pilkonis, P.A. (2017, July). *Interpersonal problems across levels of the psychopathology hierarchy*. Poster presented at the meeting of the Society for Interpersonal Theory and Research, Pittsburgh, PA.
- ◆ Grove, J., Smith, T., **Girard, J.M.**, & Wright, A.G.C. (2017, July). *Narcissistic admiration and rivalry: An interpersonal approach to construct validation*. Poster presented at the meeting of the Society for Interpersonal Theory and Research, Pittsburgh, PA.
- ◆ Amole, M.C., **Girard, J.M.**, Smith, E., Cyranowski, J.M., Swartz, H.A., & Wright, A.G.C. (2017, July). *Interpersonal behaviors during mother-child discussions*. Poster presented at the meeting of the Society for Interpersonal Theory and Research, Pittsburgh, PA.

- ♦ **Girard, J.M.**, Wright, A.G.C., Beeney, J.E., Lazarus, S.A., Scott, L.N., Stepp, S.D., & Pilkonis, P.A. (2017, May). *Interpersonal problems across levels of the psychopathology hierarchy*. Poster presented at the meeting of the Association for Psychological Science, Boston, MA.
- ♦ **Girard, J.M.** (2015, May). *The interpersonal circumplex as an integrative framework for the study of depressed interpersonal behavior*. Poster presented at the meeting of the Society for Interpersonal Theory and Research, Toronto, Canada.
- ♦ **Girard, J.M.**, & Mullins, P. (2007, May). *Effect of sexual history and situational factors on automatic sexual perceptions*. Poster presented at the UW Undergraduate Research Symposium, Seattle, WA.

Workshops, Tutorials, and Demos

NB: *Workshops and tutorials are extended (e.g., half-day or full-day) educational presentations at psychology and computer science conferences, respectively. Demos are formal technology demonstrations presented at computer science conferences.*

- ♦ **Girard, J.M.** & Cohn, J.F. (2017, May). *Statistical methods for affective computing*. Tutorial presented at the IEEE Conference on Automatic Face & Gesture Recognition, Washington, DC.
- ♦ **Girard, J.M.** (2017, May). *Open-source software for continuous measurement and media annotation*. Demo presented at the IEEE Conferences on Automatic Face & Gesture Recognition, Washington, DC.
- ♦ De la Torre, F., **Girard, J.M.**, & Cohn, J.F. (2015, September). *Facial expression analysis*. Tutorial presented at the IEEE Conference on Biometrics: Theory, Applications, and Systems, Arlington, VA.
- ♦ Jeni, L.A., **Girard, J.M.**, Cohn, J.F., & Kanade, T. (2015, May). *Real-time dense 3D face alignment from 2D video with automatic facial action unit coding*. Demo presented at the IEEE Conference on Automatic Face & Gesture Recognition, Ljubljana, Slovenia.

Research Resources

NB: *The shared databases listed below contain recordings of human behavior that have been annotated by trained observers. Such databases enable computer scientists to compare behavior analysis techniques in a standardized space; they also provide psychological researchers with stimuli for studies on interpretation of and response to behavior.*

Open-Source Software

- ♦ **ssm**: R package for the Structural Summary Method (2017). <http://github.com/jmgirard/ssm>
- ♦ **mReliability**: Reliability Analysis in MATLAB (2015–2017). <http://mreliability.jmgirard.com>
- ♦ **DARMA**: Dual Axis Rating and Media Annotation (2014–2017). <http://darma.jmgirard.com>
- ♦ **CARMA**: Continuous Affect Rating and Media Annotation (2014–2017). <http://carma.jmgirard.com>

Shared Databases

- ♦ **GFT**: Group Formation Task Spontaneous Facial Expression Database (2017). <http://osf.io/7wcyz>
- ♦ **MMSE**: Multimodal Spontaneous Emotion Database (2016). <http://bit.ly/2yg39Cn>
- ♦ **BP4D**: Binghamton-Pittsburgh 4D Spontaneous Emotion Database (2014). <http://bit.ly/2yg39Cn>

Clinical Experience

- ◆ **Internship**, University of Mississippi Medical Center 2017 – 2018
- ◆ **Externship**, Personality Processes and Outcomes Lab 2016 – 2017
- ◆ **Externship**, Services for Teens at Risk Clinic, WPIC 2014 – 2015
- ◆ **Practicum**, Clinical Psychology Center, University of Pittsburgh 2011 – 2017

Teaching Experience

- ◆ **Co-founder/Lecturer**, Statistics Practicum, University of Pittsburgh 2016 – 2017
- ◆ **Instructor/Designer**, Learning & Motivation, University of Pittsburgh 2016
- ◆ **Teaching Assistant**, Abnormal Psychology, University of Pittsburgh 2010, 2016
- ◆ **Teaching Assistant**, Learning & Motivation, University of Pittsburgh 2011
- ◆ **Teaching Assistant**, Psychology of Personality, University of Pittsburgh 2010

Service Activities

Professional Leadership

- ◆ **APSSC Communications and Marketing Officer**, Association for Psychological Science 2017 – 2018
- ◆ **Co-founder**, Community for Advanced Methodological Learning, University of Pittsburgh 2016 – 2017
- ◆ **Graduate Student Representative**, Clinical Psychology, University of Pittsburgh 2012 – 2013

Conference Organization

- ◆ **Program Committee**, Automated Face & Gesture Recognition 2018
- ◆ **Program Committee**, Affective Computing and Intelligent Interaction 2015 – 2018
- ◆ **Web Chair**, Society for Interpersonal Theory and Research 2017 – 2018
- ◆ **Symposium Co-Chair**, Association for Psychological Science 2014

Ad hoc Journal Reviewing

- ◆ **Psychology**: Assessment (ASM), Journal of Abnormal Psychology (ABN), Journal of Personality Assessment (JPA), Journal of Research in Personality (JRP), Personality and Mental Health (PMH), Plos One (P1), Psychological Assessment (PAS), Psychological Science (PS), Quality & Quantity (QAQ)
- ◆ **Computer Science**: IEEE Transactions on Affective Computing (TAC), Image and Vision Computing (IVC), Journal of Open Research Software (JORS), Pattern Recognition (PR)

Skills and Proficiencies

- ◆ **Quantitative:** Linear Modeling (AOV, LM, GLM), Structural Equation Modeling (EFA, CFA, SEM), Multilevel Modeling (HLM, MSEM), Reliability/Agreement Analysis, Support Vector Machines (SVM), Missing Data Analysis (MI, FIML), Longitudinal Data Analysis (CLPA, LGCM, ARIMA), Meta-Analysis, Resampling Methods (BS, CV), Mixture Modeling (FMM, LCA, LPA)
- ◆ **Programming:** Statistical Syntax (R, MATLAB, Mplus), Typesetting (LaTeX), Version Control (Git), Web Development (HTML, CSS, Shiny, PHP, JavaScript), Multimedia Transcoding (ffmpeg)
- ◆ **Observational Methods:** Facial Action Coding System (FACS), Specific Affect Coding System (SPAFF), Continuous Assessment of Interpersonal and Affective Dynamics (CAID, CAAD)
- ◆ **Clinical Intervention:** Cognitive-Behavioral Therapy (CBT), Interpersonal Psychotherapy (IPT), Motivational Interviewing (MI), Relationship Enhancement Therapy (RET), Chain Analysis (CA)
- ◆ **Clinical Assessment:** Psychodiagnostic Assessment (SCID, MINI, K-SADS), Personality Disorder Assessment (SIDP, SCID-AMPD, MMPI), Cognitive Assessment (MoCA, WAIS, WISC, WIAT)

Academic References

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