











- neural networks. In *Proceedings of the IEEE conference on Computer Vision and Pattern Recognition*. 1725–1732.
- [45] Athanasios Katsamanis, James Gibson, Matthew P Black, and Shrikanth S Narayanan. 2011. Multiple instance learning for classification of human behavior observations. In *International Conference on Affective Computing and Intelligent Interaction*. Springer, 145–154.
- [46] Patricia K Kerig and Donald H Baucom. 2004. *Couple observational coding systems*. Taylor & Francis.
- [47] Chi-Chun Lee, Matthew Black, Athanasios Katsamanis, Adam C Lammert, Brian R Baucom, Andrew Christensen, Panayiotis G Georgiou, and Shrikanth S Narayanan. 2010. Quantification of prosodic entrainment in affective spontaneous spoken interactions of married couples. In *Eleventh Annual Conference of the International Speech Communication Association*.
- [48] Chi-Chun Lee, Athanasios Katsamanis, Matthew P Black, Brian R Baucom, Andrew Christensen, Panayiotis G Georgiou, and Shrikanth S Narayanan. 2014. Computing vocal entrainment: A signal-derived PCA-based quantification scheme with application to affect analysis in married couple interactions. *Computer Speech & Language* 28, 2 (2014), 518–539.
- [49] Haoqi Li, Brian Baucom, and Panayiotis Georgiou. 2016. Sparsely connected and disjointly trained deep neural networks for low resource behavioral annotation: Acoustic classification in couples' therapy. *arXiv preprint arXiv:1606.04518* (2016).
- [50] Timothy J Loving and Richard B Slatcher. 2013. Romantic relationships and health. *The Oxford handbook of close relationships* (2013), 617–637.
- [51] Janina Lüscher, Tobias Kowatsch, George Boateng, Prabhakaran Santhanam, Guy Bodenmann, and Urte Scholz. 2019. Social Support and Common Dyadic Coping in Couples' Dyadic Management of Type II Diabetes: Protocol for an Ambulatory Assessment Application. *JMIR research protocols* 8, 10 (2019), e13685.
- [52] Matthias R Mehl, Megan L Robbins, and Fenne große Deters. 2012. Naturalistic observation of health-relevant social processes: The Electronically Activated Recorder (EAR) methodology in psychosomatics. *Psychosomatic Medicine* 74, 4 (2012), 410.
- [53] Angeliki Metallinou, Chi-Chun Lee, Carlos Busso, Sharon Carnicke, Shrikanth Narayanan, et al. 2010. The USC CreativeIT database: A multimodal database of theatrical improvisation. *Multimodal Corpora: Advances in Capturing, Coding and Analyzing Multimodality* (2010), 55.
- [54] Angeliki Metallinou and Shrikanth Narayanan. 2013. Annotation and processing of continuous emotional attributes: Challenges and opportunities. In *2013 10th IEEE international conference and workshops on automatic face and gesture recognition (FG)*. IEEE, 1–8.
- [55] Philipp M Müller, Sikandar Amin, Prateek Verma, Mykhaylo Andriyluka, and Andreas Bulling. 2015. Emotion recognition from embedded bodily expressions and speech during dyadic interactions. In *2015 International Conference on Affective Computing and Intelligent Interaction (ACII)*. IEEE, 663–669.
- [56] Shrikanth Narayanan and Panayiotis G Georgiou. 2013. Behavioral signal processing: Deriving human behavioral informatics from speech and language. *Proc. IEEE* 101, 5 (2013), 1203–1233.
- [57] Hong-Wei Ng, Viet Dung Nguyen, Vassilios Vonikakis, and Stefan Winkler. 2015. Deep learning for emotion recognition on small datasets using transfer learning. In *Proceedings of the 2015 ACM on international conference on multimodal interaction*. 443–449.
- [58] Sally Olderbak, Andrea Hildebrandt, Thomas Pinkpank, Werner Sommer, and Oliver Wilhelm. 2014. Psychometric challenges and proposed solutions when scoring facial emotion expression codes. *Behavior Research Methods* 46, 4 (2014), 992–1006.
- [59] Charles C. Onu, Jonathan Lebensold, William L. Hamilton, and Doina Precup. 2019. Neural Transfer Learning for Cry-Based Diagnosis of Perinatal Asphyxia. In *Interspeech 2019, 20th Annual Conference of the International Speech Communication Association, Graz, Austria, 15–19 September 2019*, Gernot Kubin and Zdravko Kacic (Eds.). ISCA, 3053–3057. <https://doi.org/10.21437/Interspeech.2019-2340>
- [60] Maxime Oquab, Leon Bottou, Ivan Laptev, and Josef Sivic. 2014. Learning and transferring mid-level image representations using convolutional neural networks. In *Proceedings of the IEEE conference on computer vision and pattern recognition*. 1717–1724.
- [61] Sandeep Kumar Pandey, HS Shekhawat, and SRM Prasanna. 2019. Deep Learning Techniques for Speech Emotion Recognition: A Review. In *2019 29th International Conference Radioelektronika (RADIOELEKTRONIKA)*. IEEE, 1–6.
- [62] Soujanya Poria, Erik Cambria, Rajiv Bajpai, and Amir Hussain. 2017. A review of affective computing: From unimodal analysis to multimodal fusion. *Information Fusion* 37 (2017), 98–125.
- [63] Gabriele Prati and Luca Pietrantoni. 2010. The relation of perceived and received social support to mental health among first responders: a meta-analytic review. *Journal of Community Psychology* 38, 3 (2010), 403–417.
- [64] Nils Reimers and Iryna Gurevych. 2019. Sentence-bert: Sentence embeddings using siamese bert-networks. *arXiv preprint arXiv:1908.10084* (2019).
- [65] Julian Risch, Anke Stoll, Marc Ziegele, and Ralf Krestel. 2019. hpiDEDIS at GemEval 2019: Offensive Language Identification using a German BERT model. In *Preliminary proceedings of the 15th Conference on Natural Language Processing (KONVENS 2019)*. Erlangen, Germany: German Society for Computational Linguistics & Language Technology, 403–408.
- [66] Megan L Robbins, Ana María López, Karen L Weihs, and Matthias R Mehl. 2014. Cancer conversations in context: naturalistic observation of couples coping with breast cancer. *Journal of Family Psychology* 28, 3 (2014), 380.
- [67] Nicole A Roberts, Jeanne L Tsai, and James A Coan. 2007. Emotion elicitation using dyadic interaction tasks. *Handbook of emotion elicitation and assessment* (2007), 106–123.
- [68] Theodore F Robles, Richard B Slatcher, Joseph M Trombello, and Meghan M McGinn. 2014. Marital quality and health: A meta-analytic review. *Psychological bulletin* 140, 1 (2014), 140.
- [69] Anna Marie Ruef and Robert W Levenson. 2007. Continuous measurement of emotion. *Handbook of emotion elicitation and assessment* (2007), 286–297.
- [70] James A Russell. 1980. A circumplex model of affect. *Journal of personality and social psychology* 39, 6 (1980), 1161.
- [71] James A Russell, Anna Weiss, and Gerald A Mendelsohn. 1989. Affect grid: a single-item scale of pleasure and arousal. *Journal of personality and social psychology* 57, 3 (1989), 493.
- [72] Philip Schmidt, Attila Reiss, Robert Dürichen, and Kristof Van Laerhoven. 2019. Wearable-Based Affect Recognition—A Review. *Sensors* 19, 19 (2019), 4079.
- [73] Björn W Schuller. 2018. Speech emotion recognition: Two decades in a nutshell, benchmarks, and ongoing trends. *Commun. ACM* 61, 5 (2018), 90–99.
- [74] Laura Sels, Jed Cabrieto, Emily Butler, Harry Reis, Eva Ceulemans, and Peter Kuppens. 2019. The occurrence and correlates of emotional interdependence in romantic relationships. *Journal of personality and social psychology* (2019).
- [75] Laura Sels, Eva Ceulemans, and Peter Kuppens. 2019. All's well that ends well? A test of the peak-end rule in couples' conflict discussions. *European Journal of Social Psychology* 49, 4 (2019), 794–806.
- [76] Laura Sels, Yan Ruan, Peter Kuppens, Eva Ceulemans, and Harry Reis. 2020. Actual and perceived emotional similarity in couples' daily lives. *Social Psychological and Personality Science* 11, 2 (2020), 266–275.
- [77] Timothy W Smith and Karen Weihs. 2019. Emotion, social relationships, and physical health: concepts, methods, and evidence for an integrative perspective. *Psychosomatic medicine* 81, 8 (2019), 681–693.
- [78] Adela C Timmons, Theodora Chaspari, Sohyun C Han, Laura Perrone, Shrikanth S Narayanan, and Gayla Margolin. 2017. Using multimodal wearable technology to detect conflict among couples. *Computer* 50, 3 (2017), 50–59.
- [79] Shao-Yen Tseng, Brian R Baucom, and Panayiotis G Georgiou. 2017. Approaching Human Performance in Behavior Estimation in Couples Therapy Using Deep Sentence Embeddings. In *INTERSPEECH*. 3291–3295.
- [80] Shao-Yen Tseng, Sandeep Nallan Chakravarthula, Brian R Baucom, and Panayiotis G Georgiou. 2016. Couples Behavior Modeling and Annotation Using Low-Resource LSTM Language Models. In *INTERSPEECH*. 898–902.
- [81] Shao-Yen Tseng, Haoqi Li, Brian Baucom, and Panayiotis Georgiou. 2018. "Honey, I Learned to Talk" Multimodal Fusion for Behavior Analysis. In *Proceedings of the 20th ACM International Conference on Multimodal Interaction*. 239–243.
- [82] David Watson, Lee Anna Clark, and Auke Tellegen. 1988. Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology* 54, 6 (1988), 1063.
- [83] Martin Wöllmer, Felix Weninger, Tobias Knaup, Björn Schuller, Congkai Sun, Kenji Sagae, and Louis-Philippe Morency. 2013. Youtube movie reviews: Sentiment analysis in an audio-visual context. *IEEE Intelligent Systems* 28, 3 (2013), 46–53.
- [84] Wei Xia, James Gibson, Bo Xiao, Brian Baucom, and Panayiotis G Georgiou. 2015. A dynamic model for behavioral analysis of couple interactions using acoustic features. In *Sixteenth Annual Conference of the International Speech Communication Association*.
- [85] Bo Xiao, Panayiotis Georgiou, Brian Baucom, and Shrikanth S Narayanan. 2015. Head motion modeling for human behavior analysis in dyadic interaction. *IEEE transactions on multimedia* 17, 7 (2015), 1107–1119.