

REFERENCES

- [1] [n.d.]. YAMNet. <https://github.com/tensorflow/models/tree/master/research/audioset/yamnet>.
- [2] Matthew P Black, Athanasios Katsamanis, Brian R Baucom, Chi-Chun Lee, Adam C Lammert, Andrew Christensen, Panayiotis G Georgiou, and Shrikanth S Narayanan. 2013. Toward automating a human behavioral coding system for married couples' interactions using speech acoustic features. *Speech communication* 55, 1 (2013), 1–21.
- [3] George Boateng. 2020. Towards Real-Time Multimodal Emotion Recognition among Couples. In *Proceedings of the 2020 International Conference on Multimodal Interaction (ICMI '20), October 25–29, 2020, Virtual event, Netherlands*.
- [4] George Boateng, Laura Sels, Peter Kuppens, Janina Lüscher, Urte Scholz, and Tobias Kowatsch. 2020. Emotion Elicitation and Capture among Real Couples in the Lab. In *1st Momentary Emotion Elicitation & Capture workshop (MEEC 2020), co-located with the ACM CHI Conference on Human Factors in Computing Systems*.
- [5] Carlos Busso, Murtaza Bulut, Chi-Chun Lee, Abe Kazemzadeh, Emily Mower, Samuel Kim, Jeannette N Chang, Sungbok Lee, and Shrikanth S Narayanan. 2008. IEMOCAP: Interactive emotional dyadic motion capture database. *Language resources and evaluation* 42, 4 (2008), 335.
- [6] Carlos Busso, Srinivas Parthasarathy, Alec Burmania, Mohammed AbdelWahab, Najmeh Sadoughi, and Emily Mower Provost. 2016. MSP-IMPROV: An acted corpus of dyadic interactions to study emotion perception. *IEEE Transactions on Affective Computing* 8, 1 (2016), 67–80.
- [7] Laura L Carstensen, John M Gottman, and Robert W Levenson. 1995. Emotional behavior in long-term marriage. *Psychology and aging* 10, 1 (1995), 140.
- [8] Sandeep Nallan Chakravarthula, Haoqi Li, Shao-Yen Tseng, Maija Reblin, and Panayiotis Georgiou. 2019. Predicting Behavior in Cancer-Afflicted Patient and Spouse Interactions Using Speech and Language. *Proc. Interspeech 2019* (2019), 3073–3077.
- [9] Egon Dejonckheere, Merijn Mestdagh, Marlies Houben, Isa Rutten, Laura Sels, Peter Kuppens, and Francis Tuerlinckx. 2019. Complex affect dynamics add limited information to the prediction of psychological well-being. *Nature human behaviour* 3, 5 (2019), 478–491.
- [10] Sidney K D'mello and Jacqueline Kory. 2015. A review and meta-analysis of multimodal affect detection systems. *ACM Computing Surveys (CSUR)* 47, 3 (2015), 1–36.
- [11] Kexin Feng and Theodora Chaspari. 2020. A Review of Generalizable Transfer Learning in Automatic Emotion Recognition. *Frontiers in Computer Science* 2 (2020), 9.
- [12] Barbara L Fredrickson. 2000. Extracting meaning from past affective experiences: The importance of peaks, ends, and specific emotions. *Cognition & Emotion* 14, 4 (2000), 577–606.
- [13] Lisa Gaelick, Galen V Bodenhausen, and Robert S Wyer. 1985. Emotional communication in close relationships. *Journal of personality and social psychology* 49, 5 (1985), 1246.
- [14] Robert L Geist and David G Gilbert. 1996. Correlates of expressed and felt emotion during marital conflict: Satisfaction, personality, process, and outcome. *Personality and Individual Differences* 21, 1 (1996), 49–60.
- [15] Jort F Gemmeke, Daniel PW Ellis, Dylan Freedman, Aren Jansen, Wade Lawrence, R Channing Moore, Manoj Plakal, and Marvin Ritter. 2017. Audio set: An ontology and human-labeled dataset for audio events. In *2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. IEEE, 776–780.
- [16] James Gibson, Athanasios Katsamanis, Matthew P Black, and Shrikanth Narayanan. 2011. Automatic identification of salient acoustic instances in couples' behavioral interactions using diverse density support vector machines. In *Twelfth Annual Conference of the International Speech Communication Association*.
- [17] James Gibson, Bo Xiao, Panayiotis G Georgiou, and Shrikanth Narayanan. 2013. An audio-visual approach to learning salient behaviors in couples' problem solving discussions. In *2013 IEEE International Conference on Multimedia and Expo Workshops (ICMEW)*. IEEE, 1–4.
- [18] John Mordechai Gottman. 2005. *The mathematics of marriage: Dynamic nonlinear models*. MIT Press.
- [19] John Mordechai Gottman. 2014. *What predicts divorce?: The relationship between marital processes and marital outcomes*. Psychology Press.
- [20] John M Gottman and Robert W Levenson. 1985. A valid procedure for obtaining self-report of affect in marital interaction. *Journal of consulting and clinical psychology* 53, 2 (1985), 151.
- [21] John M Gottman and Robert W Levenson. 1986. Assessing the role of emotion in marriage. *Behavioral Assessment* (1986).
- [22] Shawn Hershey, Sourish Chaudhuri, Daniel PW Ellis, Jort F Gemmeke, Aren Jansen, R Channing Moore, Manoj Plakal, Devin Platt, Rif A Saurous, Bryan Seybold, et al. 2017. CNN architectures for large-scale audio classification. In *2017 IEEE international conference on acoustics, speech and signal processing (icassp)*. IEEE, 131–135.
- [23] Richard E Heyman. 2001. Observation of couple conflicts: Clinical assessment applications, stubborn truths, and shaky foundations. *Psychological assessment* 13, 1 (2001), 5.
- [24] Andrew G Howard, Menglong Zhu, Bo Chen, Dmitry Kalenichenko, Weijun Wang, Tobias Weyand, Marco Andreetto, and Hartwig Adam. 2017. MobileNets: Efficient convolutional neural networks for mobile vision applications. *arXiv preprint arXiv:1704.04861* (2017).
- [25] Daniel Kahneman. 2000. Evaluation by moments: Past and future. *Choices, values, and frames* (2000), 693–708.
- [26] 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.
- [27] Patricia K Kerig and Donald H Baucom. 2004. *Couple observational coding systems*. Taylor & Francis.
- [28] Chi-Chun Lee, Athanasios Katsamanis, Matthew P Black, Brian R Baucom, Panayiotis G Georgiou, and Shrikanth Narayanan. 2011. An analysis of PCA-based vocal entrainment measures in married couples' affective spoken interactions. In *Twelfth Annual Conference of the International Speech Communication Association*.
- [29] Chi-Chun Lee, Athanasios Katsamanis, Matthew P Black, Brian R Baucom, Panayiotis G Georgiou, and Shrikanth S Narayanan. 2011. Affective state recognition in married couples' interactions using PCA-based vocal entrainment measures with multiple instance learning. In *International Conference on Affective Computing and Intelligent Interaction*. Springer, 31–41.
- [30] Robert W Levenson, Laura L Carstensen, and John M Gottman. 1994. Influence of age and gender on affect, physiology, and their interrelations: A study of long-term marriages. *Journal of personality and social psychology* 67, 1 (1994), 56.
- [31] Robert W Levenson and John M Gottman. 1983. Marital interaction: physiological linkage and affective exchange. *Journal of personality and social psychology* 45, 3 (1983), 587.
- [32] 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.
- [33] 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.
- [34] Philipp M Müller, Sikandar Amin, Prateek Verma, Mykhaylo Andriylova, 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.
- [35] 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.
- [36] 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.
- [37] Fabian Pedregosa, Gaël Varoquaux, Alexandre Gramfort, Vincent Michel, Bertrand Thirion, Olivier Grisel, Mathieu Blondel, Peter Prettenhofer, Ron Weiss, Vincent Dubourg, et al. 2011. Scikit-learn: Machine learning in Python. *the Journal of machine Learning research* 12 (2011), 2825–2830.
- [38] 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.
- [39] Anna Marie Ruef and Robert W Levenson. 2007. Continuous measurement of emotion. *Handbook of emotion elicitation and assessment* (2007), 286–297.
- [40] James A Russell. 1980. A circumplex model of affect. *Journal of personality and social psychology* 39, 6 (1980), 1161.
- [41] 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.
- [42] Sourav Sahoo, Puneet Kumar, Balasubramanian Raman, and Partha Pratim Roy. 2019. A Segment Level Approach to Speech Emotion Recognition Using Transfer Learning. In *Asian Conference on Pattern Recognition*. Springer, 435–448.
- [43] 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).
- [44] 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.
- [45] 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.
- [46] Tessa V West and David A Kenny. 2011. The truth and bias model of judgment. *Psychological review* 118, 2 (2011), 357.