Sentiment and other Affects:

What are we measuring? How well are we doing?

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I address two questions. One, what are we measuring in affective computing: Internal states or person x environment interactions? Too often we assume that we are in the business of "emotion" recognition. I will argue instead that affect is relational and its indices best understood in the context of the individual's or group's strivings, goals, and dynamics. I will emphasize novel measures of social behavior in individuals, dyads, and groups and give examples from our recent research in a variety of settings with both infants and adults. The other question is how "good" our measures are. How would we know? Comparing results between different studies or even within the same study is fraught with uncertainty. We have many metrics from which to choose and we do. We make assumptions about ground truth that are open to question. I will consider several issues: Construct validity of ground truth, reliability, training set size, skew, and chance agreement. Unless these are considered, meaningful comparisons between findings are not possible.

Bio: Jeffrey Cohn is a professor of psychology and psychiatry at the University of Pittsburgh and an adjunct professor at the Robotics Institute, Carnegie Mellon University. He has led interdisciplinary and inter-institutional efforts to develop advanced methods of automatic analysis and synthesis of facial and vocal expression and applied them to research in human emotion, interpersonal processes, social development, and psychopathology.   He is an associate editor for *IEEE Transactions on Affective Computing*. He co-chaired the *IEEE International Conference on Automatic Face and Gesture Recognition* 2015 and 2008, the *International Conference on Multimodal Interfaces* 2014, the *International Conference on Affective Computing and Intelligent Interaction* 2009 and the most recent FERA Challenge. His research is supported in part by the U.S. National Institutes of Health and the U.S. National Science Foundation.