

The Sounds of Social Life: Exploring Students' Daily Social Environments and Natural Conversations

Matthias Richard Mehl, Ph.D.

The University of Texas at Austin, 2004

Supervisor: James W. Pennebaker

Recently, concerns have been raised that psychology has lost contact with naturally-occurring social life and that the discipline would benefit from a course correction towards more context- and culture-sensitive research. What do people do over the course of a day? What psychological factors account for the different lives they live? These questions aim at rather basic issues in psychology and form the bedrock of one of the most intense debates in the history of the discipline: the person-situation debate. Considering that how people select situations is a central piece in the puzzle of what personality is and whether it exists, it is surprising that several decades after the onset of the debate still very little is known about how individuals select and interact with their environments in the real world. This dissertation reconsidered basic assumptions underlying research on person-situation interactions by revealing psychological aspects of people's natural situation selection.

We have recently introduced the Electronically Activated Recorder (EAR) as a research tool for sampling behavioral data in naturalistic settings. The EAR records 30-second snippets of ambient sounds in participants' immediate environments approximately every 12 minutes. The sampled sounds are coded for aspects of the participants' social environments (such as where and how they spent their days) as well as their natural conversations (such as the amount and type of social interactions they had). Participants' utterances captured by the EAR are transcribed and analyzed linguistically. The strength of the method – compared to traditional experience sampling approaches – lies in providing authentic records of participants' naturally occurring daily lives from the perspective of an unobtrusive observer.

The purpose of this dissertation was to reveal how students' social lives are related to basic psychological processes that traditionally have been at the heart of the discipline. Empirically, it was based on three major EAR data sets. The first data set was collected between October 1998 and April 1999 in the context of a project that tested whether writing about traumatic experiences can bring about changes in people's social lives (see Mehl & Pennebaker, 2003a). 52 introductory psychology students (28 women, 24 men) wore the EAR twice for 48 hours separated by four weeks yielding a total of more than 10,000 data points on participants' moment-to-moment interactions, activities, and environments. The second EAR sample was collected between April and December 2001 and consisted of 96 introductory psychology students (49 males, 47 females) who wore the EAR once for 48 hours. This data set also included a wide spectrum of survey measures on the participants'

personalities and social activities. The third EAR data set was collected around the September 11 Attacks (see Mehl & Pennebaker, 2003b). Six people began to wear the EAR on September 10, 2001. Eight more participants were recruited on September 11. The final sample consisted of 10 females and 4 males who wore the ear continuously for 10 days.

Conceptually, the dissertation was comprised of three broad research questions referred to as Study 1 to 3. The purpose of Study 1 was to provide an empirical evaluation of the EAR as a method for sampling naturalistic observations. Self-reports and behavioral data from three samples were used to assess the method's obtrusiveness in daily life and participants' compliance with wearing the EAR. Overall, the EAR created a moderate yet tolerable burden in daily life. Immediately after receiving the device, most participants went through a brief period of heightened self-consciousness. Within an hour of wearing the device, however, participants adjusted to the method and rarely mentioned it in their daily interactions. This habituation effect was found not only for a continuous 48-hour monitoring, but also for an extended 12-day recording. Participants' compliance was generally very high in the initial hours after receiving the EAR. Not wearing the EAR increased over time and finally leveled off at about 10-12% on the second day, a compliance rate that is comparable to that reported for traditional experience sampling methods. With its high-frequency sampling, however, the EAR typically yields more than 50 valid data points per participant per day, a number that in absolute terms falls far above what other methods achieve. Thus, a unique advantage of the EAR is its fine-meshed sampling that can reliably capture even low-frequency behaviors, such as arguments, self-talk, or laughter.

Study 2 constituted a "quantitative ethnography" of students' daily lives. In many ways, people's ordinary lives are at the heart of what psychologists are interested in. Ultimately, in the real-world, it is in human's social encounters where most of everyday psychology takes place. Despite their obvious importance, however, people's daily lives have received little scientific attention. Not much is known about such basic empirical questions as how, with whom, and where people naturally spend their days. Consequently, Study 2 sought to provide an in-depth map of students' daily social environments and conversations based on the three collected EAR data sets. Three major findings emerged from the analyses: (1) There were immense individual differences in participants' daily social environments and conversations. These individual differences were only partially accounted for by demographic factors such as a person's gender and ethnicity. (2) Students' social lives showed a remarkable degree of temporal stability from an observers' point of view. Even low-frequency behaviors such as laughing, self-talk or cursing had very high test-retest reliabilities. (3) Unaffected by this stability, there was large systematic within-day variability in participants' social lives. Many aspects of students' social environments and conversations showed strong time-of-day-related trends. Over the course of a day, for example, students on average not only showed an increase in their overall social activity (i.e., the time they spent with others), but also gradually shifted their social encounters from dyadic interactions in the morning to group conversations and phone calls at night. Taken together, the findings from Study 2 showed that students' daily lives are

saturated with psychological information and that the ways people select and interact with their environments are a powerful marker of real-world individual differences.

Study 3 conceptually built on Study 2 by exploring the role that individual differences in students' social environments and conversations play for interpersonal perception. To the extent that individual differences in social life are meaningful manifestations of personality traits, it becomes important to understand how people use these social-life cues for forming impressions about others. For example, do extraverts talk more than introverts in daily life? And, to what extent do people use talking as an indicator of extraversion? Are depressed people less socially active than non-depressed people? And, to what extent do people use social withdrawal as an indicator of depression? In Study 2, the process of interpersonal perception was simulated by having observers form personality impressions about unacquainted targets upon listening to two days worth of their EAR sound files. Personality information on the targets was available from participants' self-reports. The analyses followed Brunswik's lens-model paradigm. The findings showed that (a) observers were able to form highly consensual personality impressions based on the targets' social lives, (b) with depression as the sole exception, these impressions were rather accurate and (c) in forming their impressions the observers used a wide range of cues about the targets' daily social environments and conversations. Surprisingly, whereas observers based their impressions of male and female students largely on similar cues, the behavioral manifestations of targets' personalities were in many cases gender differentiated. For example, both males and females were considered extraverted to the extent that they had many group conversations and little self-talk. Only among female students, however, were group conversations indeed diagnostic of Extraversion and only for male students was self-talk a reliable marker of introversion. Similarly, both males and females came across as emotionally stable to the extent that they spent a lot of time laughing and socializing. Only among females, however, was laughing a reliable sign of emotional stability and only among males was socializing related to a lack of emotional stability. To the extent that these gender differences in the expression and their lack thereof in the perception of personality replicate in future studies, they need to be integrated into current models of personality development and implicit personality theories. They further have the potential to explain various systematic biases in everyday interpersonal perception.

The goal of the dissertation was to reveal basic psychological underpinnings of students' naturally occurring social lives. The three studies identified the ways people select and interact with their everyday environments as powerful markers of individual differences. Taken together, they laid the foundation for a psychological study of naturalistic person-situation interactions that can offer a new look at a broad spectrum of conceptual and methodological questions in psychology. As an unobtrusive observation sampling tool or a "quantitative ethnographic method", the EAR has particular potential for researchers in cross-cultural and personality psychology. The possibility, for example, to derive personality dimensions directly from people's daily encounters with their social environments instead of from descriptive trait adjectives bears the potential of clarifying a number of persisting problems in the study of individual differences.