

SOCIALIZING TO RECOVER FROM WORK STRESS:
THE BENEFITS OF ACTING EXTRAVERTED

By

Robert Harste

Dr. Chris Cunningham
Associate Professor of Psychology
Committee Chair

Dr. Brian O'Leary
Associate Professor of Psychology
Committee Member

Dr. Kate Rogers
Assistant Professor of Psychology
Committee Member

SOCIALIZING TO RECOVER FROM WORK STRESS:
THE BENEFITS OF ACTING EXTRAVERTED

By
Robert Harste

A Thesis Submitted to the Faculty of The University of
Tennessee at Chattanooga in Partial Fulfillment
of the Requirements of the Degree of
Master of Science: Psychology

The University of Tennessee at Chattanooga
Chattanooga, Tennessee

May 2016

ABSTRACT

The aim of this study was to examine the effects of socializing, or activities that are characterized by social interaction, on recovery from work stress. Drawing from consistent findings in personality research, we hypothesized that individuals who measure high in extraversion receive the greatest recovery benefits from socializing, and that this relationship is mediated by state positive affect. An online assessment was administered to 238 participants to measure trait extraversion, trait and state affect, and factors related to their social activities across two recent time periods. Hypotheses were tested using correlational and regression-based techniques. The findings provide support for a relationship between state positive affect and recovery from work stress. Contribution during social activities (i.e. acting extraverted) predicted state positive affect while controlling for trait extraversion.

TABLE OF CONTENTS

ABSTRACT.....	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS.....	viii
CHAPTER	
I. INTRODUCTION AND LITERATURE REVIEW	1
Work-Related Stress and Recovery	2
The E-R model.....	2
The COR model.....	3
Recovery Activities in General	4
Socializing as a Recovery Activity	6
The importance of personality, perception, and content.....	6
Why this Matters: Extraversion and Positive Affect	8
Sociability as a facet of extraversion	9
The Present Study	11
II. METHODOLOGY	15
Participants.....	15
Measures	16
Assessments of Time Usage	16
Positive Affect	17
Extraversion.....	18
Quality of Recovery.....	19
Procedure	19
III. RESULTS	21
Hypothesis 1.....	24
Hypothesis 2.....	24
Hypothesis 3.....	27

IV. DISCUSSION AND CONCLUSION	31
Implications.....	32
Limitations and Future Research	33
Conclusion	33
REFERENCES	34
APPENDIX	
A. IRB APPROVAL LETTER.....	38
B. SURVEY MEASURES GIVEN TO PARTICIPANTS	40
VITA.....	59

LIST OF TABLES

1 Descriptive Statistics for all Study Variables	22
2 Intercorrelations between all Study Variables	23
3 Indirect Effects on Need for Resource Recovery	26
4 Indirect Effect of Extraversion Facets	27
5 Indirect Effects on State Positive Affect.....	29
6 Indirect Effects of Extraversion Facets on Socializing Experience.....	30

LIST OF FIGURES

1 Conceptual Model.....	14
2 State Positive Affect as Possible Mediator of the Relationship Between Trait Extraversion and Quality of Recovery.....	25
3 Socializing Experience as Possible Mediator of Relationship Between Trait Extraversion and State Positive Affect	28

LIST OF ABBREVIATIONS

PANAS-X, Positive and Negative Affectivity Scale – Expanded Form

BFI, Big Five Inventory

NFRRS, Need for Resource Recovery Scale

REQ, Recovery Experiences Questionnaire

CHAPTER I

INTRODUCTION

Work-related stress and its effects are well-documented issues in the field of occupational health psychology (Hahn, Binnewies, Sonnentag, & Mojza, 2011). There has also been much research in recent years exploring how people recuperate from the effects of work stress. Several theoretical models have been developed to explain how stress from work affects performance and how individuals can use their off-work time to recover from work stress (Hobfoll, 1989; Meijman & Mulder, 1998). After-work activities have been found to help workers recover from work stress by facilitating psychological detachment from work-related demands (Fritz & Sonnentag, 2005; Fritz, Sonnentag, Spector, & McInroe, 2010; Rook & Zijlstra, 2006). Many after-work activities have been examined and identified as “recovery experiences.” However, activities involving social interaction have received scant research attention.

Understanding the effects of social activities on recovery from work stress would be especially valuable to stress and recovery researchers and practitioners given the pervasiveness of social activities. Most people are presented with ample opportunities to socialize in work and nonwork roles in a typical day. A better understanding of the relationship between socializing and personal work stress levels and recovery could lead to effective strategies to more easily manage stress from work while on and off the job.

While limited research has specifically examined social activities as a form of recovery, there is a wealth of literature on the effects of socializing behavior on mood. In particular, there

is a large evidence base linking the personality trait extraversion with positive affect. Positive affective states have been found to predict beneficial recovery outcomes (Fritz et al., 2010; Oerlemans, Bakker, & Demerouti, 2014). Interestingly, recent studies examining the link between extraversion and positive affect suggest that individuals can improve their affective state by acting or behaving in an “extraverted” way (Fleeson, Malanos, & Achille, 2002; Smillie, DeYoung, & Hall, 2015; Zelenski, Santoro, & Whelan, 2012). Therefore, the purpose of the present study is to explore whether acting extraverted can help employees recover from work stress.

Work-Related Stress and Recovery

Meijman and Mulder (1998), defined recovery as the process by which our stress-related psychological and physiological response capabilities are restored to their pre-stressor state. The recovery process rebuilds impaired mood and reduces physiological strain indicators. The fundamentals of work-related stress and the recovery process are perhaps best captured and explained by the two most widely applied theoretical models in recovery research, the Effort-Recovery (E-R) model (Meijman & Mulder, 1998) and the Conservation of Resources (COR) model (Hobfoll, 1989).

The E-R model. The E-R model of stress and recovery is based on previous models that attributed job stress to the relationship between the workload and the capacity of the worker to meet workload demand (Meijman & Mulder, 1998). A distinctive characteristic of the E-R model is that it takes into account the worker’s (in)ability to make adjustments to achieve a certain work procedure. The model proposes that the work procedure is determined by three

factors: (1) *work demands*, which refer to the job tasks and the environmental factors that they have to be completed under, (2) *work potential*, which includes both the effort supplied by the worker and the worker's ability to perform, and (3) *decision latitude*, which is the extent to which the employee can change the work procedure (Meijman & Mulder). These determinants affect the work procedure and its outcomes, which consist of products and short-term psychological and physiological reaction.

Meijman and Mulder (1998) assert that, when experiencing workload, a person's psychological and physiological reactions are always adverse; however, these can be reversed if the exposure to workload is interrupted. A central tenet to the E-R model is that, when the worker is no longer exposed to workload, recovery occurs and the worker's systems are able to return to their baseline level. Recovery reduces the negative effects of stress, such as fatigue. However, long-term negative reactions can occur if workers are continually exposed to the workload and not permitted to return to their baseline states (Meijman & Mulder).

The COR model. The COR model identifies stress as what is experienced when a person loses resources, or perceives the threat of resource loss (Hobfoll, 1989). The term resource is used to refer to various concepts in psychological research. Hobfoll (1989) defines resources as, "objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these object, personal characteristics, conditions, or energies" (p. 516). Resources can have either practical value to individuals or hold symbolic value, meaning they help individuals define who they are. Social support does not fit within the types of resources mentioned above; however, Hobfoll (1989) does note that social support is a resource

“to the extent that they provide or facilitate the preservation of valued resources, but they can also detract from individuals’ resources” (p. 517).

The COR model differs from most other stress models in that it outlines the types of behaviors that individuals enact when encountering, or not encountering, stress. According to the theory, when individuals are threatened by resource loss, they actively try to reduce this loss. When individuals are not experiencing stress, they try to accumulate a surplus of resources to minimize future loss. Therefore, from a COR perspective, recovery is the process of regaining lost resources and protecting the self against future loss (Hobfoll, 1989).

Both the E-R and COR models suggest that workers make decisions to minimize exposure to stressors and resulting stress experiences. A major class of decisions pertinent to this overarching objective involves what a person will do to recover, replenish, and/or rebuild resources that have been expended in the past or may be needed in the future. The research to date on recovery does not provide clear guidance that could be used to inform good recovery-related decisions. Instead, the general assumption used in recovery-related research is that different people engage in very different forms of activities, any of which may or may not be particularly resource-replenishing depending on the person. In addition, some recovery activities are more likely than others to distract a person from one’s daily work-related stressor exposures and stress experiences. As such, certain types of recovery activities may be more effective than others at helping workers to detach from work and replenish needed resources.

Recovery Activities in General

Recent research supports the positive effects of different types of recovery experiences. Most of this research has focused on activities people engage in outside of normal working hours

(Fritz & Sonnentag, 2005; Fritz et al., 2010; Rook & Zijlstra, 2006), but there is also evidence that resource replenishment is not necessarily restricted to time outside of work (Cranley, Cunningham, & Panda, 2015). The emphasis on recovery outside of work is understandable, given the theoretical emphasis in the E-R model on recovery being possible only when one's experienced work demands are absent (Meijman & Mulder, 1998).

Instead of focusing on specific activities or classes of activities for the recovery potential, the majority of research on recovery experiences has focused on qualitative features of experiences during nonwork time that are likely to facilitate recovery and resource replenishment (Sonnentag & Fritz, 2007). Most research in this area has identified nonwork experiences as recovery-related if a person associates them strongly with one or more of the following experiences: (1) *psychological detachment*, involving the mental separation from work-related experiences (Sonnentag, Binnewies, & Mojza, 2008), (2) *relaxation*, associated with decreased physical indicators of stress such as heart rate and muscle tension (Sonnentag et al., 2008), (3) *mastery*, which increases the resources of the individual through learning or invoking greater confidence (Hahn et al., 2011; Sonnentag et al., 2008), and (4) *control*, which is any activity that is related to the individual's personal goals and desires (Hahn et al., 2011).

One objective in the present study was to demonstrate that it is possible to move beyond the identification of recovery and its effects in a general sense. Specifically, the focus here was on reaching a better understanding of the potential of specific activities to facilitate recovery in most individuals. By focusing on a specific class or type of recovery activity, it may eventually be possible to take steps toward more practical interventions and guidance for workers who need help in establishing recovery routines that maximize their chances of successfully recovering. As already noted briefly and as detailed in the next section, socializing with others is a particularly

relevant class of recovery activity as it is common and easily understood by researchers and non-researchers alike.

Socializing as a Recovery Activity

Numerous studies have identified engaging in social activities (i.e., socializing) as a form of recovery enhancing experience (Sonnentag, 2001; Sonnentag & Zijlstra, 2006). Intuitively, social activities would help workers recover from work stress by providing social support, which individuals could use to buffer work demands (Oerlemans et al., 2014). Interestingly, the empirical support for the positive effects of socializing is not entirely consistent. For example, Fritz and Sonnentag (2005) found that social activities over a weekend provided recovery value to individuals and that socializing with friends and family, more specifically, during the weekend predicted task performance and general well-being during the following work week. However, Sonnentag and Bayer (2005) reported that social activities were not related to recovery, and Sonnentag and Natter (2004) found socializing to be negatively related to recovery outcomes. These mixed findings coincide with a point emphasized by Hobfoll (1989), that social support can lead to both replenishment or loss of resources. This inconsistency may be explained by person-level differences in perception and underlying differences in the content of socializing.

The importance of personality, perception, and content. Sonnentag and Fritz (2007) suggested that personality may influence the methods by which we achieve recovery experiences. Extraversion may be particularly relevant as a personality trait, given its association with outgoing and generally social behavior. Sonnentag and Fritz suggested that “both extravert and introvert individuals have the potential to psychologically detach from work, to relax, to experience mastery and control—although the specific activities by which they reach these

experiences may largely differ” (p. 209). However, studies exploring these differences have not yet been conducted. There is, however, some theoretical and empirical evidence supporting the notion that the “positivity” of social activities may moderate the effects of socializing on recovery.

Research regarding socializing and work stress is primarily found in the social support literature, specifically in studies examining the relationship between social support and strain (employees’ negative reactions to stressors at work). The hypothesis that emotional social support protects workers from strain has received consistent support and been widely accepted (Beehr, Bowling, & Bennett, 2010). However, the tone of the social interactions was found to be a moderator of this relationship, such that discussion of positive aspects of work was negatively related to strain, but discussion of negative work stressors was positively related to strain outcomes (Beehr et al.).

Similarly, Oerlemans et al. (2014) tested whether happiness, defined as a “pleasurable and mildly activated momentary state” (p. 200) in response to various after-work activities moderated recovery. Results indicated that, when participants experienced high activation and pleasure from after-work social activities, socializing was positively related to recovery. Interestingly, when experiencing low activation and pleasure, social activities were negatively related to recovery. These findings indicate the possibility that the affective states triggered by certain after-work activities and experiences predict whether they will aid, or prevent, the recovery process.

On a related note, Bowling, Beehr, and Swader (2005) found that trait extraversion improves the likelihood of participating in social interactions with coworkers that focused on positive work aspects, but was not related to interactions focused on negative aspects. These

findings suggest that, within the work context, workers with higher levels of trait extraversion appear to experience more frequent and positive social interactions. The higher prevalence of positive social activities may explain some of the variance that has been observed between extraverts and introverts in regard to socializing and recovery benefits.

Why this Matters: Extraversion and Positive Affect

Strongly extraverted individuals tend to be bold, assertive, and gregarious, while weakly extraverted (or strongly introverted) individuals are typically passive, quiet, and reserved (John, Naumann, & Soto, 2008). In addition to this overall pattern of extraversion-positive, introversion-negative alignments, an association between trait extraversion, and trait and state positive affect has been among the most consistent findings in personality and individual differences research (Diener & Lucas, 1999; Lucas, Diener, Grob, Suh, & Shao, 2000; Watson & Clark, 1997).

Recent studies have also found that *state* extraversion, or how extraverted an individual's behavior is in a given moment, also consistently predicts state positive affect. Counter-dispositional behavior studies (i.e., experiments in which dispositional introverts and extraverts were instructed to act extraverted) have found that, when both extraverts and introverts behave in an extraverted way, momentary positive affect consistently increases (Fleeson et al., 2002; Smillie, Wilt, Kabbani, Garratt, & Revelle, 2015; Zelenski et al., 2012).

The extraversion–positive affect connection could have practical implications when considered in the context of socializing as a form of recovery. The link between recovery activities and positive affect is already fairly well-established. For example, Fritz et al. (2010) found that recovery experiences during weekends predicted discrete positive affective states

during the following work week, indicating that recovery experiences may be antecedents of positive affect during work. Affective states are related to many important organizational behaviors (Fritz et al.). More specifically, state positive affect has been found to predict daily job satisfaction (Scott & Judge, 2010) and proactive behavior (Fritz & Sonnentag, 2009). Furthermore, affective states and their work-related outcomes have been found to persist overnight, so off-work activities can influence affective states the following work day (Sonnentag et al., 2008).

If trait and state forms of extraversion are also associated with positive affect, then perhaps *being* extraverted is in itself a form of inherent resilience (trait) and *acting* extraverted is likely to enhance recovery (through effects on positive affect and behavioral choices, like socializing with others). How extraversion causes high positive affect is still unknown, though many studies have attempted to explain this relationship through examinations of extraversion's sociability dimension.

Sociability as a facet of extraversion. Social behavior has long been seen as an indication of a person's underlying general extraversion. This linkage has been supported with theoretical arguments and empirical evidence. In a lexical analysis, McCrae and Costa (1987) found sociable, fun-loving, affectionate, friendly, and talkative to be descriptors most strongly aligned with the extraversion factor. Thus, they concluded that, "sociability—the enjoyment of others' company—seems to be the core" (p. 87) of extraversion. From a different perspective, Lucas et al. (2000) proposed that extraversion is actually characterized by a person's reward-sensitivity, or the reactivity of the Behavioral Activation System that regulates a person's responses to conditioned rewards. After comparing both sociability and reward-sensitivity within the same person, Lucas et al. concluded that reward sensitivity was more strongly related to the

variance between different extraversion factors, supporting the claim that extraverts are “reward-sensitives”. Lucas et al. also found that sociability and extraversion were still found to be strongly related.

The research just cited is closely aligned with the original conceptualization of the introversion-extraversion distinction by Eysenck (1967). Eysenck argued that this difference may be observed in their underlying physiology, specifically in the activity of their Ascending Reticular Activation System. Eysenck proposed that many of the differences in behavior related to extraversion are connected to this difference in underlying “arousability” or reactivity to stimuli. Specifically, over-aroused introverts are inclined to avoid external stimulation, such as what would be experienced during social interaction, while extraverts actively seek external stimulation to achieve optimal arousal. Eysenck’s explanation of the difference between introverted and extraverted social behavior is reminiscent of current folk explanations of extraversion (e.g., extraverts gain more energy, but introverts lose energy in social situations).

Many researchers have asserted that the positive affectivity of extraverts can be attributed to their general sociability. Research testing this assertion has often been designed around a so-called *social activity hypothesis* (Lucas, Le, & Dyrenforth, 2008; Watson, Clark, McIntyre, & Hamaker, 1992), which is essentially that participation in social activities should mediate the relationship between trait extraversion and positive affect. In one of the strongest tests of this hypothesis, Watson et al. found, over the course of a 13-week longitudinal study, that weekly social activity levels were related to weekly positive affective states. Specifically, social activities labelled as social entertainment, active participation, and social responsibilities predicted higher state measures of positive affect.

In a similar study, Lucas et al. (2008) tested social activities as a mediator of the relationship between extraversion and positive affect using both global and momentary assessments, and trait and state measures of extraversion, positive affect, and sociability. Lucas et al.'s data provided only weak support for the mediation-by-social activity model, but extraverts were found to socialize more with friends and colleagues than introverts. Of greater importance to the present study, social activity was found to predict equal increases in state positive affect in both extraverted and introverted individuals.

Smillie, Wilt, et al. (2015) examined the quality (rather than quantity) of social activities as a possible mediator of the relationship between extraversion and positive affect. To test this, Smillie et al. examined momentary social well-being, a broad measure of the quality of social activities (Keyes, 1998) as a mediator of extraversion and positive affect. The results showed momentary social well-being to be a strong predictor of positive affect when controlling for extraversion. Specifically, one of the dimensions of the social well-being measure, contribution to the social situations, explained approximately two-thirds of the effects of acting extraverted on positive affect. These findings provide strong support for the possibility that the degree to which people contribute when engaged in socializing may predict their resulting affective state, regardless of trait extraversion. More specifically, both introverts and extraverts could increase their state positive affect by actively contributing during social activities, greatly improving their perceived quality of these activities.

The Present Study

Limited research exists regarding the utility of social activities as a mechanism for recovery; relevant research that does exist has yielded inconsistent results. As presented in the

preceding sections, however, consideration of the broader literature on extraversion, positive affect, and social support offers a potentially more comprehensive perspective on how socializing may be recovery enhancing for some people. The most consistent finding in the research just presented is that socializing (i.e., acting extraverted) can protect individuals from effects of work stress, but that interacting with others socially may not be equally beneficial in terms of recovery value for all people.

The findings obtained from research on the relationship between extraversion and positive affect suggest that socializing may facilitate recovery from work stress. Positive (and negative) affective states have been linked to important work-related behaviors, and there is substantial evidence that engaging in social activity increases state positive affect. Specifically, acting extraverted by engaging in, and contributing to, social activities has been shown to significantly increase positive affect by creating a better quality of social experience (Lucas et al., 2008; Smillie, Wilt, et al., 2015; Watson et al., 1992).

Social activities with a positive tone have also been found to be associated with better recovery outcomes in the recovery research (Oerlemans et al., 2014). Similarly, social support of a positive nature at work can protect workers from strain. Extraverts have been found to be more likely to give and receive positive social support at work, but the relationship between giving positive support and receiving it was still observed when controlling for extraversion (Beehr et al., 2010; Bowling et al., 2005). Therefore, acting extraverted by engaging in mostly positive social activities may also result in greater state positive affect.

In the present study, the effects of different types of socializing on individuals' affective states will be examined. Theoretical inspiration for this study was obtained from the previously cited models used in work-stress and recovery research, as well as extraversion and positive

affect research; therefore, its findings will contribute to research related to organizational behavior, as well as personality and mood. More specifically, the quantity and quality of participants' recent past social activities will be evaluated and then linked with positive affective states and the quality of recovery. Moreover, types of social activities, discrete positive affective states, and different recovery experiences will also be examined to obtain a richer information base that can be more easily related to occupational health practices.

Building on the preceding theoretical and empirical background, the following conceptual model will be tested in this study (Figure 1). The present study was designed to test the following hypotheses that extend from this conceptual model:

H1: State positive affect is negatively related to need for resource recovery.

H2: State positive affect mediates the relationship between trait extraversion and the need for resource recovery.

H3: Socializing experience mediates the relationship between trait extraversion and state positive affect, such that “acting” extraverted will be positively related to state positive affect levels, while controlling for trait extraversion. Specifically:

- a. Amount of socializing is positively related to state positive affect.
- b. Social contribution during social interactions is positively related to state positive affect.
- c. Social interactions described as having a generally positive tone are positively related to state positive affect.

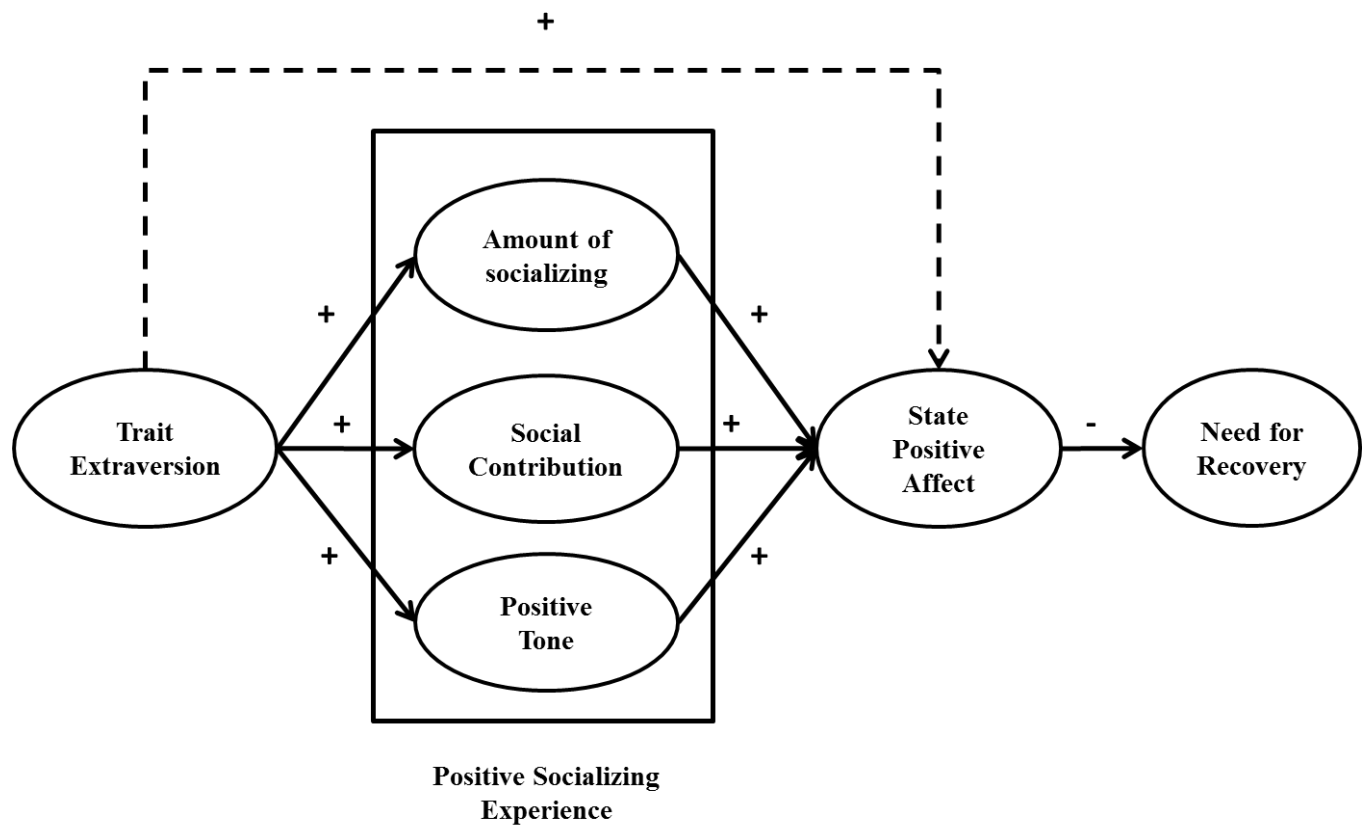


Figure 1 Conceptual Model

CHAPTER II

METHODOLOGY

Participants

Two hundred and thirty-eight students attending The University of Tennessee at Chattanooga constituted the sample of participants for this study. These individuals were recruited through the UTC Psychology Department's Research Participation System. No incentive was provided by the researcher for participating in this study, but some course professors granted a small amount of course-related credit for participating in this research.

Of these participants, 49 (20.7%) were male and the mean age ranged from 17 to 51 ($M = 19.76$, $SD = 3.11$). There were 7 Asian (3%), 28 Black/African American (11.8%), 7 Hispanic/Latino (3%), 200 White (84.4%), and 1 (.4%) American Indian/Alaskan Native. The relationship status of participants was as follows: 148 (62.4%) "Single"; 5 (2.1%) "Married/Living as married"; 83 (35%) "In a committed (serious) relationship, but not married"; and 1 (.4%) "Divorced/Widowed". The median number of dependents reported by participants was 0, but there was wide variability. Specifically, 214 participants (90.3%) reported not having any dependents, 7 (3%) reported having one dependent, 5 (2.1%) reported having two dependents, 2 (.8%) reported having three dependents, and 4 (1.6%) reported having four or more dependents.

Measures

In addition to the demographic information above, participants were asked to report the number of hours they typically spend working during any given seven-day period. For this measure, “work” was defined broadly to include time in class, time spent studying or doing homework, and time working for pay. Participants were also asked to report the number of hours they typically spend socializing, or spending time with friends, family, or others in a typical week. In addition, the participants were asked to respond to the following measures of the core study variables. Internal consistency reliability information, where appropriate, is included along the diagonal of Table 2. All measures for this study are included in the Appendix.

Assessments of Time Usage. Measures of time usage, previously used to assess the daily activities of medical residents, were adapted to assess the participants’ social activities (Cranley et al., 2015). For a general assessment of time usage, participants were asked to indicate in percentage terms their time spent socializing with others over two time periods: during the previous day and on average over the previous seven days. Specifically, participants were asked to report, for each time period, the percentage of time during working hours that they spent socializing with others, as well as the percentage of time during non-working hours that was spent socializing with others. For example, a participant who is not given much opportunity to interact with others during work, but spends most of his/her off-work time around others may respond by reporting that 5% of time at work was spent socializing with others and 70% of time outside of work was spent socializing with others during the previous day. Prior to the time usage assessments, the participants were told to think about their socializing experiences during the time period of interest. To aid measurement, “socializing” was defined broadly as any

activity during which the participants' interacted in a social manner, face-to-face, with other people.

Participants were also asked to rate the extent to which they felt they contributed to their social activities, relative to everyone else. Ratings were made on a seven-point Likert Scale ("1" = significantly less to "7" = significantly more). This measure for social contribution was believed to be more appropriate for the present study than the scale used by Smillie and colleagues (2015), which asked participants to indicate their contribution to a group discussion task relative to the other two group members. For the present study, a rating will better capture the social contribution of each participant across different social situations that could involve different sized social groups.

The overall positive/negative tone of the interactions was also measured using another scale created for this study. Participants responded to the following prompt: "When socializing with friends, what percentage of the time do you typically spend on light-hearted, happy, or fun topics and what percentage of time do you typically spend on sad, depressing, or negative topics?" Responses were numerical values between 0 and 100 that together must sum to 100%.

The above measures were pilot-tested prior to the present study. The sample consisted of psychology graduate students at The University of Tennessee at Chattanooga. They were asked to complete the survey to the best of their ability and offer comments and suggestions. The results of the pilot test did not indicate a need for major alteration to the assessments.

Positive Affect. Participants completed the Positive and Negative Affectivity Scale – Expanded Form (PANAS-X; Watson & Clark, 1999) to assess trait and state positive affect, as well as trait and state negative affect. The measure consisted of several affect descriptors (e.g. *active, enthusiastic, inspired*) which the participants used to indicate how they felt in general (i.e.

trait affect) and how they felt during the previous day and on average over the previous seven days (state affect). The participants indicated how they felt using a seven-point Likert Scale (“1” = very slightly or not at all to “7” = extremely). Both measures of state affect were completed after the assessments of time usage. The items for the trait affect scales were placed after the other measures of personality traits used in the survey.

Although state PA is most relevant to the hypotheses of this study, measures of trait PA and trait/state NA were also included to control for general positivity and negativity. Thus far, extraversion has only been clearly linked with the form of PA conceptualized by the General Positive Affect Scale of the PANAS-X, which includes both activation and positive valence (Smillie, DeYoung, et al., 2015). Therefore, only the General Positive Affect and General Negative Affect Scales were used from the PANAS-X.

Extraversion. Trait extraversion was measured using both the Big Five Inventory (BFI; John et al., 2008; John & Srivastava, 1999) and the IPIP representation of Costa and McCrae's (1992) NEO facets for Extraversion (Goldberg et al., 2006). The 44-item BFI is a widely used questionnaire that assesses each of the Big Five personality factors (i.e. agreeableness, extraversion, conscientiousness, neuroticism, and openness to experience). Although extraversion is the trait of interest in this study, the rest of the Big Five were also measured as covariates.

The 60-item IPIP scale used included six constructs similar to the six facets of Extraversion identified in Costa and McCrae's (1992) NEO PI-R. The facets measured by the IPIP scale are friendliness, gregariousness, assertiveness, activity level, adventure seeking, and cheerfulness. Although sociability (i.e. gregariousness) is the facet of extraversion believed to be most relevant to the present study, the other facets were also measured as covariates.

Quality of Recovery. The participants' current recovery needs were assessed with the Need for Resource Recovery Scale (NFRRS; Cunningham, 2008). This 12-item scale measured the participants' perceived recovery needs using two dimensions: (1) lack of attention/cognitive resources (e.g., "I have been working so hard today that I am losing my ability to concentrate on what I am doing"), and (2) need for detachment (e.g., "When I stop my work for today I will need more than an hour to begin feeling recovered"). For each statement, the participants indicated how accurately the statement described how they felt at the current moment.

To better understand how different individuals achieve recovery outcomes through socializing, the Recovery Experiences Questionnaire was used. The 16-item questionnaire was created by Sonnentag and Fritz (2007) to measure participants' recovery experiences during their free time. For this study, the measure was edited to ask participants to indicate their recovery experiences during social activities. Items in this scale measure the participants' recovery experiences in terms of the four classes previously discussed using 4 four-item subscales: psychological detachment (e.g., "*During social activities, I forget about work.*"), relaxation (e.g., "*During social activities, I kick back and relax.*"), mastery experiences (e.g., "*During social activities, I learn new things.*"), and control (e.g., "*During social activities, I feel like I can decide for myself what to do.*"). For each statement, the participants indicated their level of agreement on a seven-point Likert Scale ("1" = I do not agree at all to "7" = I fully agree).

Procedure

The Institutional Review Board at The University of Tennessee at Chattanooga approved the procedures for this study prior to beginning data collection (IRB Approval #15-113). This approval letter is included in the Appendix. Data collection began on November 9th, 2015 and

closed on December 4th, 2015. Participants who volunteered for the study were instructed to complete the assessment through the UTC Psychology Department's Research Participant Management System. Participants were asked to read and sign an informed consent form, detailing the purpose of the study and that individual responses will be kept completely confidential. Participant first indicated the average number of hours that they work during a typical week. The participants then completed the "Socializing Experience" assessments—including the time usage measures, contribution measures, measures of positive/negative tone, and measures of state affect—for both time periods. The participants then completed the measures for the Big Five personality and extraversion facets and the trait version (i.e. in general) of the PANAS-X, followed by a survey containing the recovery-related scales. Lastly, the participants responded to the demographic items.

CHAPTER III

RESULTS

Overall descriptive statistics for each of the measures are presented in Table 1 and Table 2. Specifically, number of cases, means, medians, standard deviations, minimums and maximums for all variables are presented in Table 1; bivariate correlations between scores on all measures as well as the Cronbach alpha scores of each scale measure, are presented in Table 2.

Table 1 Descriptive Statistics for all Study Variables

		<i>N</i>	<i>M</i>	<i>Median</i>	<i>SD</i>	Minimum	Maximum
Demographics	Gender	237	1.79	2.00	0.41	1.00	2.00
	Age	226	19.76	19.00	3.11	17.00	51.00
	Number of Dependents	232	0.21	0.00	0.99	0.00	10.00
	Hours Spent Working	236	32.35	30.00	17.94	0.00	100.00
	Hours Spent Socializing	236	23.83	20.00	18.29	2.00	100.00
BFI	Conscientiousness	237	3.63	3.67	0.60	2.11	5.00
	Extraversion	237	3.31	3.38	0.84	1.25	5.00
	Agreeableness	237	3.88	3.89	0.59	2.22	5.00
	Neuroticism	237	2.98	3.00	0.75	1.25	4.88
	Openness to Experience	237	3.50	3.50	0.60	1.80	5.00
NEO-IPIP Facets	Friendliness	237	3.75	3.80	0.74	1.20	5.00
	Gregariousness	237	3.37	3.40	0.85	1.00	5.00
	Assertiveness	237	3.47	3.40	0.68	1.70	5.00
	Activity Level	237	3.20	3.20	0.50	1.90	4.60
	Excitement Seeking	237	3.25	3.22	0.72	1.11	5.00
	Cheerfulness	237	4.01	4.10	0.67	1.50	5.00
Affect	Trait Negative Affect	237	1.86	1.70	0.73	1.00	5.00
	Trait Positive Affect	237	3.74	3.80	0.82	1.00	5.00
	State Negative Affect (Yesterday)	237	1.81	1.60	0.69	1.00	4.30
	State Positive Affect (Yesterday)	237	3.24	3.30	0.91	1.00	5.00
	State Negative Affect (Last Week)	237	1.99	1.80	0.71	1.00	4.10
	State Positive Affect (Last Week)	237	3.42	3.50	0.86	1.00	5.00
Social Exp.	Time Spent Socializing at Work	237	35.93	30.00	23.34	0.00	100.00
	Time Spent Socializing outside Work	237	54.75	57.50	23.17	2.00	100.00
	Contribution	227	4.51	4.50	0.95	2.00	7.00
	Positive Tone	237	47.19	52.00	34.89	-60.00	100.00
Quality of Recovery	Detachment	237	2.86	3.00	0.95	1.00	5.00
	Relaxation	237	3.88	4.00	0.73	1.00	5.00
	Mastery	237	3.56	3.75	0.80	1.00	5.00
	Control	237	3.98	4.00	0.71	1.00	5.00
	Lack of Attention/Cognitive Resources	237	3.52	3.50	1.40	1.00	6.67
	Need for Detachment	237	3.92	4.00	1.34	1.00	7.00

Note. Gender was coded as 1=Male, 2=Female.

Table 2 Intercorrelations between all Study Variables

Variables		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
Demographics	1. Gender																
	2. Age	.04															
	3. Number of Dependents	-.03	.03														
	4. Hours Spent Working	.09	.19 *	-.03													
	5. Hours Spent Socializing	.03	-.03	.07	.03												
BFI	6. Conscientiousness	.03	.05	-.02	.22 *	-.04	.75										
	7. Extraversion	.10	-.05	.02	-.04	.16 *	.10	.87									
	8. Agreeableness	.08	-.02	.07	.05	.18 *	.33 *	.25 *	.75								
	9. Neuroticism	.22 *	.02	-.02	.09	-.07	-.25 *	-.28 *	-.33 *	.81							
	10. Openness to Experience	.10	.04	-.02	.21 *	.02	.18 *	.18 *	.14 *	-.13	.79						
NEO-PIP Facets	11. Friendliness	.10	-.07	.05	-.03	.22 *	.25 *	.71 *	.55 *	-.30 *	.21 *	.88					
	12. Gregariousness	.03	-.17 *	.04	-.09	.22 *	.14 *	.64 *	.39 *	-.22 *	.14 *	.70 *	.90				
	13. Assertiveness	.04	-.01	.04	.10	.04	.34 *	.58 *	.14 *	-.17 *	.36 *	.53 *	.51 *	.85			
	14. Activity Level	.05	-.02	.02	.29 *	-.05	.34 *	.32 *	.09	-.11	.10	.22 *	.21 *	.49 *	.69		
	15. Excitement Seeking	.02	-.11	.06	-.03	.10	-.18 *	.37 *	-.04	-.10	.18 *	.19 *	.43 *	.27 *	.10	.79	
	16. Cheerfulness	.24 *	-.04	-.03	-.05	.19 *	.16 *	.45 *	.51 *	-.29 *	.20 *	.57 *	.47 *	.27 *	.12	.31 *	.88
Affect	17. Trait Negative Affect	.13 *	-.01	.12	.08	-.01	-.25 *	-.16 *	-.35 *	.51 *	.01	-.29 *	-.23 *	-.14 *	-.04	.05	-.29 *
	18. Trait Positive Affect	.06	-.06	.02	.01	.09	.39 *	.46 *	.34 *	-.38 *	.24 *	.50 *	.41 *	.43 *	.30 *	.18 *	.50 *
	19. State Negative Affect (Yesterday)	.00	-.01	.13 *	.12	-.08	-.30 *	-.15 *	-.33 *	.47 *	.08	-.30 *	-.17 *	-.08	.01	.10	-.27 *
	20. State Positive Affect (Yesterday)	.02	-.13	.01	-.11	.09	.40 *	.31 *	.28 *	-.37 *	.11	.36 *	.26 *	.28 *	.25 *	.06	.43 *
	21. State Negative Affect (Last Week)	.12	-.02	.12	.13	.05	-.28 *	-.18 *	-.28 *	.50 *	.05	-.20 *	-.20 *	-.10	-.07	.09	-.18 *
	22. State Positive Affect (Last Week)	-.03	-.03	-.02	-.02	.10	.41 *	.36 *	.29 *	-.30 *	.19 *	.39 *	.30 *	.32 *	.27 *	.09	.45 *
Social Exp.	23. Time Spent Socializing at Work	.12	.02	.01	.07	.12	.01	.14 *	.02	.07	-.03	.06	.10	.01	.08	.10	.11
	24. Time Spent Socializing outside Work	.13 *	-.14 *	-.03	-.26 *	.40 *	.04	.22 *	.20 *	-.09	-.02	.28 *	.26 *	.06	-.03	-.02	.26 *
	25. Contribution	-.02	.01	-.04	-.06	.14 *	.21 *	.32 *	.21 *	-.17 *	.10	.32 *	.28 *	.21 *	.11	.03	.25 *
	26. Positive Tone	-.08	-.06	-.12	-.12	-.16 *	.15 *	.15 *	.21 *	-.29 *	-.11	.18 *	.11	.06	.07	-.09	.27 *
Quality of Recovery	27. Detachment	.09	.10	-.09	.04	-.03	-.09	.00	-.03	.00	-.07	-.02	-.02	-.05	-.13 *	.09	.04
	28. Relaxation	.11	.00	-.12	-.08	.08	.02	.15 *	.17 *	-.06	.16 *	.23 *	.17 *	.05	-.23 *	.17 *	.40 *
	29. Mastery	.03	-.02	.00	.06	.00	.24 *	.21 *	.20 *	-.21 *	.52 *	.23 *	.14 *	.31 *	.21 *	.16 *	.31 *
	30. Control	.18 *	.01	-.05	.08	-.07	.35 *	.08	.11	-.09	.27 *	.10	.10	.30 *	.11	.15 *	.32 *
	31. Lack of Attention/Cognitive Resources	.01	-.01	.06	.23 *	-.05	-.28 *	-.07	-.06	.22 *	.02	-.15 *	-.13 *	-.17 *	.02	.03	-.13
	32. Need for Detachment	-.05	.05	.05	.17 *	-.08	-.24 *	-.22 *	-.24 *	.25 *	-.02	-.32 *	-.30 *	-.25 *	-.05	-.12	-.17 *
Affect	17. Trait Negative Affect	.91															
	18. Trait Positive Affect	-.22 *	.93														
	19. State Negative Affect (Yesterday)	.54 *	-.27 *	.86													
	20. State Positive Affect (Yesterday)	-.28 *	.68 *	-.36 *	.92												
	21. State Negative Affect (Last Week)	.65 *	-.24 *	.67 *	-.26 *	.87											
	22. State Positive Affect (Last Week)	-.25 *	.77 *	-.25 *	.77 *	-.23 *	.93										
Social Exp.	23. Time Spent Socializing at Work	.04	.04	.03	.13	.05	.05										
	24. Time Spent Socializing outside Work	-.06	.19 *	-.10	.21 *	-.08	.19 *	.17 *									
	25. Contribution	-.22 *	.30 *	-.24 *	.36 *	-.32 *	.32 *	.10	.17 *								
	26. Positive Tone	-.25 *	.28 *	-.39 *	.32 *	-.36 *	.30 *	-.06	.09	.15							
Quality of Recovery	27. Detachment	.08	-.02	-.06	-.10	-.03	-.07	.01	.03	.00	-.03	.85					
	28. Relaxation	-.02	.15 *	-.06	.13 *	-.04	.15 *	.03	.07	.09	.07	.35 *	.91				
	29. Mastery	-.03	.39 *	-.04	.24 *	-.05	.35 *	-.02	.00	.10	.06	-.18 *	.18 *	.88			
	30. Control	-.08	.33 *	-.10	.27 *	-.06	.32 *	-.02	-.01	.03	.07	.11	.32 *	.38 *	.85		
	31. Lack of Attention/Cognitive Resources	.30 *	-.08	.22 *	-.21 *	.21 *	-.16 *	.06	-.15 *	-.07	-.09	.04	-.19 *	-.05	-.13 *	.87	
	32. Need for Detachment	.33 *	-.16 *	.27 *	-.21 *	.29 *	-.20 *	.03	-.17 *	-.14 *	-.13	.05	-.10	-.06	-.06	.66 *	.87

Note. * $p < .05$; alpha reliabilities, where appropriate, are listed in italics along the diagonal

Hypothesis 1

A correlation analysis was used to test Hypotheses 1. Hypothesis 1 stated that state positive affect is related to quality of recovery. As Table 2 shows, significant correlations were found between state positive affect during both the previous day and last week and all measures for quality of recovery (lack of attention/cognitive resources, need for detachment). Specifically, state positive affect during the previous day was significantly negatively correlated with lack of attention/cognitive resources, $r(235) = -.21, p < .05$, and need for detachment, $r(235) = -.21, p < .05$. State positive affect during the previous week was also significantly correlated with lack of attention/cognitive resources, $r(235) = -.16, p < .05$, and need for detachment, $r(235) = -.20, p < .05$. Most of the variables representing quality of recovery were found to be significantly related to trait positive affect as well; however, state positive affect during the previous day generally showed the strongest correlations to the quality of recovery variables. These results provide support for Hypothesis 1.

Hypothesis 2

A mediation analysis using the PROCESS tool for conditional analyses (Hayes, 2013) was conducted to test Hypothesis 2. Hypothesis 2 stated that state positive affect would mediate the relationship between trait extraversion and quality of recovery. For analyses purposes, “quality of recovery” was represented by a combining the mean scale scores of the Need for Resource Recovery Scale measures (need for resource recovery and need for detachment), due to its utility as a measure of current recovery needs. Also, “trait extraversion” was calculated by combining the mean score from the BFI scale for extraversion with the mean scores measured by each of the IPIP NEO facets for extraversion (friendliness, gregariousness, assertiveness, activity

level, adventure seeking, and cheerfulness). State positive affect during the previous day was used to represent state positive affect due to its more powerful relation to current recovery needs.

A significant total effect was found between trait extraversion and quality of recovery without the mediator present. The direct effect of trait extraversion on quality of recovery, with the mediator included in the analysis, was weaker than the total effect, but was still significant. These effects are presented in Figure 2. In terms of mediation, there was no evidence of significant indirect effects linking trait extraversion and quality of recovery through state positive affect. There was no significant direct effect of state positive affect during the previous day on current recovery needs. The indirect effects results are fully summarized in Table 3. Based on these findings, Hypothesis 2 was not supported.

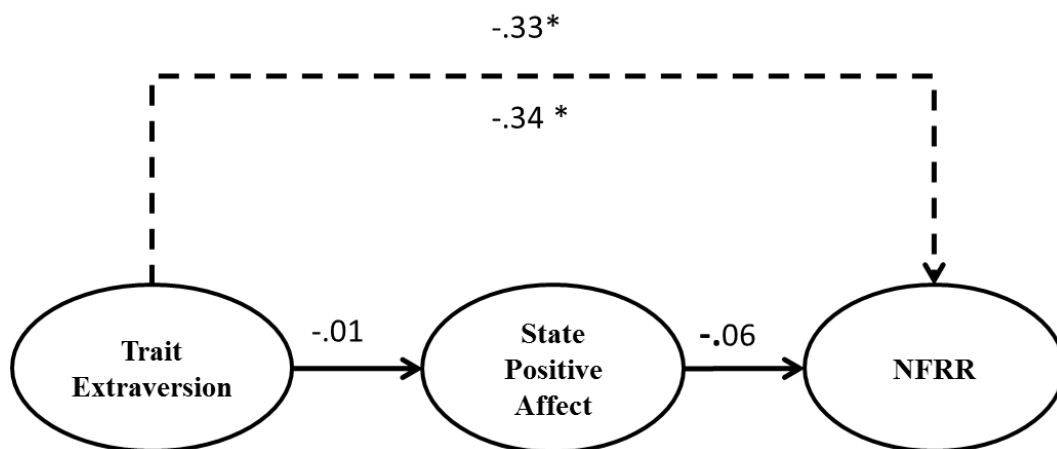


Figure 2 State Positive Affect as Possible Mediator of the Relationship Between Trait Extraversion and Quality of Recovery.

Table 3 Indirect Effects on Need for Resource Recovery

	<i>Coeff</i>	<i>SE</i>	<i>p</i>	LLCI	ULCI
Constant	3.87 *	1.12	.00	1.67	6.07
State Positive Affect (Yesterday)	-0.06	0.12	.60	-0.29	0.17
Trait Extraversion	-0.34 *	0.13	.01	-0.60	-0.07
Gender	-0.16	0.19	.41	-0.53	0.22
Age	0.00	0.02	.89	-0.05	0.04
Conscientiousness	-0.62 *	0.15	.00	-0.91	-0.34
Agreeableness	0.11	0.15	.46	-0.18	0.40
Neuroticism	0.06	0.12	.63	-0.19	0.31
Openness to Experience	0.01	0.13	.92	-0.25	0.27
Trait Negative Affect	0.38 *	0.12	.00	0.15	0.62
Trait Positive Affect	0.21	0.14	.13	-0.06	0.49
Hours Spent Working	0.02 *	0.00	.00	0.01	0.03
TOTAL	-0.33 *	0.13	.01	-0.60	-0.07

Full model Adj $R^2 = .2524$ $F(10, 214) = 7.2236$, $p < .05$

Note. These estimates were generated using a procedure from Hayes (2013); CI = confidence interval; BC = bias corrected; based on 10,000 bootstrap resamples. * $p < .05$.

Additional analyses were also conducted in which trait extraversion in the above model was replaced by the NEO-IPIP facets of extraversion. The results of this analyses are detailed in Table 4. Interestingly, only the cheerfulness facet of extraversion was found to be significantly related to state positive affect; however, all of the facets except activity level and cheerfulness were significantly negatively related to need for resource recovery.

Table 4 Indirect Effect of Extraversion Facets

	State Positive Affect (Yesterday)					Need for Resource Recovery				
	<i>Coeff</i>	<i>SE</i>	<i>p</i>	LLCI	ULCI	<i>Coeff</i>	<i>SE</i>	<i>p</i>	LLCI	ULCI
Trait Extraversion	-0.01	0.08	.91	-0.17	0.15	-0.34 *	0.13	.01	-0.60	-0.07
Friendliness	-0.01	0.08	.88	-0.16	0.14	-0.33 *	0.13	.01	-0.59	-0.08
Gregariousness	-0.07	0.06	.26	-0.19	0.05	-0.24 *	0.10	.02	-0.44	-0.04
Assertiveness	-0.06	0.08	.39	-0.21	0.08	-0.32 *	0.13	.01	-0.57	-0.07
Activity Level	0.11	0.10	.30	-0.09	0.30	0.12	0.17	.48	-0.22	0.46
Adventure Seeking	-0.06	0.06	.34	-0.19	0.07	-0.21 *	0.11	.05	-0.43	0.00
Cheerfulness	0.17 *	0.09	.05	0.00	0.34	-0.15	0.15	.32	-0.45	0.15

Note. These estimates were generated using a procedure from Hayes (2013); CI = confidence interval; BC = bias corrected; based on 10,000 bootstrap resamples. * $p < .05$.

Hypothesis 3

A mediation analysis was also conducted to test Hypothesis 3, which was that socializing experience mediates the relationship between trait extraversion and state positive affect while controlling for trait extraversion. For analyses purposes, “socializing experience” was represented in terms of three indicators. Amount of socializing was represented by the percentage of time outside of work that participants indicated they spent socializing. Contribution was represented by a combination of the scores of how participants rated their contribution during social activities during the previous day and during last week. Positive tone was calculated by combining the scores that represent the percentage of conversation during the previous day and last week that focused on positive topics and subtracting the combined scores that represent conversation focused on negative topics; thus, a high, positive value for the aggregated score would indicate that the participant’s conversation has been generally very positively toned, and a high, negative value for the aggregated score would indicate that the participant’s conversation has been generally very negatively toned.

There was not a significant total effect found between trait extraversion and state positive affect without the mediators present. There also was not a significant effect of trait extraversion on state positive affect with the mediators present, as shown in Figure 3. In terms of mediation,

there was partial evidence of significant indirect effects linking trait extraversion and state positive affect through contribution. There was a significant direct effect between trait extraversion and contribution. There was also a significant effect between contribution and state positive affect. There was no significant relationships between trait extraversion and the other mediators, and the mediators did not show direct effects on state positive affect, although the indirect effect of positive tone on state positive affect approached significance. The indirect effects results are fully summarized in Table 5. These findings provide partial support for Hypothesis 3; specifically, Hypothesis 3b. which stated that contribution during social activities is positively related to state positive affect was supported.

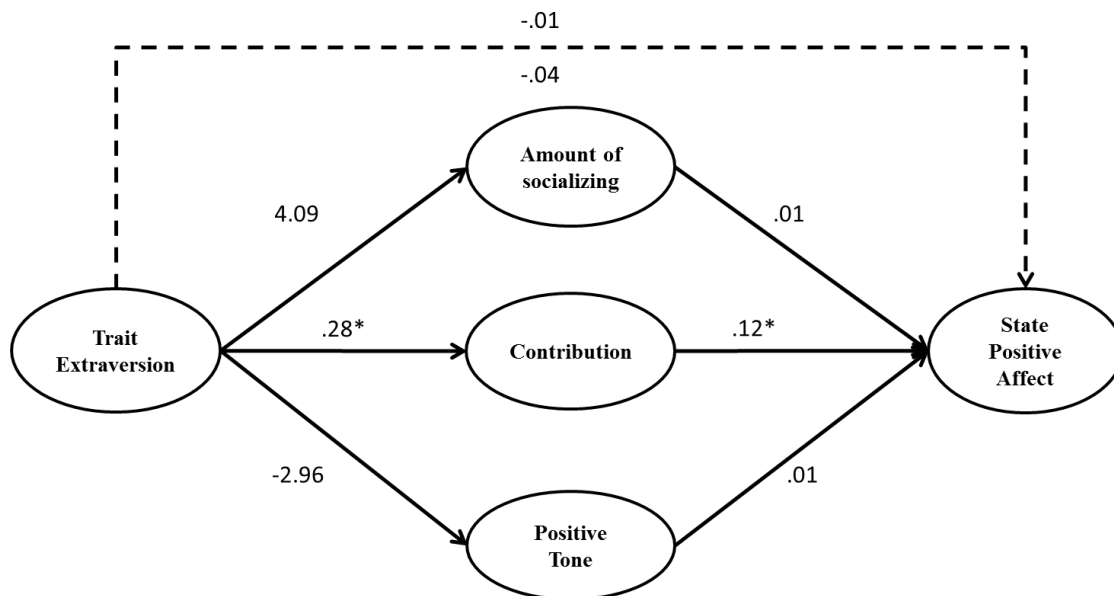


Figure 3 Socializing Experience as Possible Mediator of Relationship Between Trait Extraversion and State Positive Affect.

Table 5 Indirect Effects on State Positive Affect

	<i>Coeff</i>	<i>SE</i>	<i>p</i>	LLCI	ULCI
Constant	0.98	0.70	.16	-0.40	2.36
Time Spent Socializing outside Work	0.00	0.00	.42	0.00	0.01
Contribution	0.12 *	0.05	.02	0.02	0.22
Positive Tone	0.00	0.00	.07	0.00	0.01
Trait Extraversion	-0.04	0.08	.64	-0.20	0.13
Gender	0.06	0.12	.59	-0.17	0.29
Age	-0.03 *	0.01	.05	-0.06	0.00
Conscientiousness	0.23 *	0.09	.01	0.06	0.40
Agreeableness	-0.10	0.09	.29	-0.27	0.08
Neuroticism	-0.09	0.07	.21	-0.24	0.05
Openness to Experience	-0.03	0.08	.67	-0.19	0.13
Trait Negative Affect	-0.07	0.07	.35	-0.21	0.08
Trait Positive Affect	0.57 *	0.07	.00	0.43	0.72
Hours Spent Working	0.00	0.00	.17	-0.01	0.00
TOTAL	0.03	0.03	.95	-0.02	0.10
Socializing vs. Contribution	-0.03	-0.03		-0.08	0.01
Socializing vs. Tone	0.01	0.02		-0.01	0.06
Contribution vs. Tone	0.04 *	0.02		0.01	0.10
Full model Adj $R^2 = .4986$ $F(10, 205) = 20.3847$, $p < .05$					

Note. These estimates were generated using a procedure from Hayes (2013); CI = confidence interval; BC = bias corrected; based on 10,000 bootstrap resamples. * $p < .05$.

Additional analyses were also conducted in which trait extraversion in the above model was replaced by the NEO-IPIP facets of extraversion. The results of this analyses are detailed in Table 6. All of the facets were found to be significantly related to social contribution, but not to the other socializing experience mediators.

Table 6 Indirect Effects of Extraversion Facets on Socializing Experience

		Point estimate	SE	BC 95% CI	
				Lower	Upper
Trait Extraversion	Time Spent Socializing outside Work	0.0068	0.0115	-0.0071	0.0439
	Contribution	0.0332 *	0.0212	0.0033	0.0902
	Positive Tone	-0.0073	0.012	0.0402	-0.0402
	TOTAL	0.0327	0.0289	-0.0158	0.098
	Full model Adj $R^2 = .4986$ $F(10, 205) = 20.3847, p < .05$				
Friendliness	Time Spent Socializing outside Work	0.0017	0.0021	-0.0023	0.0058
	Contribution	0.1187 *	0.0512	0.0178	0.2197
	Positive Tone	0.0025	0.0014	-0.0002	0.0052
	TOTAL	0.0017	0.0792	-0.1544	0.1578
	Full model Adj $R^2 = .4986$ $F(10, 205) = 20.3839, p < .05$				
Gregariousness	Time Spent Socializing outside Work	0.002	0.002	-0.002	0.0060
	Contribution	0.1261 *	0.0506	0.0263	0.2260
	Positive Tone	0.0023	0.0014	-0.0004	0.0050
	TOTAL	-0.0763	0.0626	-0.1996	0.047
	Full model Adj $R^2 = .5022$ $F(10, 205) = 20.6805, p < .05$				
Assertiveness	Time Spent Socializing outside Work	0.0016	0.002	-0.0024	0.0056
	Contribution	0.118 *	0.0505	0.0184	0.2176
	Positive Tone	0.0024	0.0014	-0.0003	0.0051
	TOTAL	-0.0571	0.0777	-0.2104	0.0961
	Full model Adj $R^2 = .4999$ $F(10, 205) = 20.4915, p < .05$				
Activity Level	Time Spent Socializing outside Work	0.0017	0.002	-0.0023	0.0057
	Contribution	0.1117 *	0.0504	0.0124	0.2110
	Positive Tone	0.0025	0.0014	-0.0002	0.0052
	TOTAL	0.1203	0.1025	-0.0819	0.3224
	Full model Adj $R^2 = .5019$ $F(10, 205) = 20.6580, p < .05$				
Adventure Seeking	Time Spent Socializing outside Work	0.0015	0.002	-0.0025	0.0055
	Contribution	0.1154 *	0.0504	0.0162	0.2147
	Positive Tone	0.0024	0.0014	-0.0003	0.0051
	TOTAL	-0.0693	0.0672	-0.2018	0.0632
	Full model Adj $R^2 = .5012$ $F(10, 205) = 20.5957, p < .05$				
Cheerfulness	Time Spent Socializing outside Work	0.0013	0.002	-0.0027	0.0053
	Contribution	0.1105 *	0.0503	0.0113	0.2097
	Positive Tone	0.0023	0.0014	-0.0005	0.0050
	TOTAL	0.1643	0.0902	-0.0136	0.3422
	Full model Adj $R^2 = .5066$ $F(10, 205) = 21.0447, p < .05$				

Note. These estimates were generated using a procedure from Preacher and Hayes (2008); CI = confidence interval; BC = bias corrected; based on 10,000 bootstrap resamples. $N = 216$. * $p < .05$.

CHAPTER IV

DISCUSSION

The purpose of the present study was to explore the utility of socializing as an active form of recovery from work stress. Socializing with friends and family has been indicated to be a form of recovery, but the benefits of socializing have been inconsistent. Furthermore, no previous study has examined the mediators used in this study as influencers on recovery. The results provided partial support for the stated hypotheses. In this section, each hypothesis will be examined, as well as limitations and implications.

Hypothesis 1 posited that state positive affect is positively related to quality of recovery. The correlational analysis supported the expectation that state positive affect during the previous day is positively related to current recovery needs. This hypothesis was based on findings that recovery experiences predict state positive affect during the following workdays; therefore, state positive affect may function as an indicator of adequate recovery. However, another study also reported that affective states during after-work activities moderated the recovery effects of the activities. The precise nature of the relationship between state affect and recovery is still ambiguous, but the current study provides evidence that the two constructs are related.

Hypothesis 2 proposed that state positive affect would mediate the relationship between trait extraversion and quality of recovery. Trait extraversion was found to have a significant indirect effect on need for resource recovery; however, there was not support for a mediating effect linking the two through positive affect. It is important to note that the covariates used in

the analysis included trait positive affect, which would possibly take much of the variance in a relationship controlled by state positive affect. Supporting this assumption, when the same analysis was performed without the covariates, significant effects were found between trait extraversion and state positive affect, as well as between state positive affect and quality of recovery.

Hypothesis 3 proposed that the relationship between trait extraversion and state positive affect would be mediated by three aspects of the participant's social experiences: the amount that they socialized, the degree that they contributed during social activities, and the degree that the tone of conversation was positive. Of the proposed mediators, only contribution was found to be significant. Although positive tone approached significance and showed a significant effect on state positive affect when the covariates weren't included in the analysis.

Implications

It is difficult to formulate strong implication statements based on the present results of this exploratory analysis. State positive affect was found to be positively related to quality of recovery, but whether state positive affect predicts positive recovery outcomes is still unclear. An intriguing finding was the effect of contribution on state positive affect. The purpose of the present study was to explore how socializing could be used as a strategy to recovery from work stress. The findings indicate that while the amount of time spent socializing outside of work or the positivity of the conversation do not predict state positive affect, the perception that you are contributing during social activities will predict state positive affect, above and beyond one's personality and sociability. From a COR perspective, using resources to actively contribute during social activities could produce a greater return of resources to enhance mood and recovery.

Limitations and Future Research

The sample used for this study consisted entirely of college students at the same institution. Although the variability in time spent socializing and time spent working was adequately large in the sample, the definition for “work” used in the measure was intentionally broad. A sample consisting of fully-employed participants would be more appropriate for the emphasis on work stress in the present study. The present study also relied on self-report survey measures with only one data collection for each participant. Multiple data collections should be used in future studies for more reliable analyses.

There are many suggestions for future research related to the present study. Greater focus on the nature of the relationship between state positive affect and quality of recovery is needed to make better inferences from these findings. The analyses in the present study also indicated some possible future directions for the relationship between personality and recovery.

Conscientiousness and agreeableness were both found to be generally related to many recovery and affect-related variables in the study. Both may prove to be important individual differences in future recovery research.

Conclusion

Thus far, the effects of socializing on recovery from work stress have been ambiguous. The present study provides partial support that extraversion and positive affect may explain some of the variance in these effects. This study contributes to the line of research that has examined the relationship between affect and recovery. It was also found that, when socializing activities are used to actively recover from stress, rather than passively relax, recovery benefits may be achieved regardless of trait extraversion or sociability.

REFERENCES

- Beehr, T. A., Bowling, N. A., & Bennett, M. M. (2010). Occupational stress and failures of social support: When helping hurts. *Journal of Occupational Health Psychology, 15*(1), 45-59. doi: 10.1037/a0018234
- Bowling, N. A., Beehr, T. A., & Swader, W. M. (2005). Giving and receiving social support at work: The roles of personality and reciprocity. *Journal of Vocational Behavior, 67*(3), 476-489. doi: <http://dx.doi.org/10.1016/j.jvb.2004.08.004>
- Cranley, N. M., Cunningham, C. J. L., & Panda, M. (2015). Understanding time use, stress and recovery practices among early career physicians: an exploratory study. *Psychology, Health & Medicine, 1*-6. doi: 10.1080/13548506.2015.1061675
- Cunningham, C. J. L. (2008). *Development and refinement of a need for resource recovery scale*. Paper presented at the APA-NIOSH-SOHP Work, Stress, and Health: Healthy and Safe Work through Research, Practice, and Partnerships conference, Washington, DC.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 213-229). New York, NY, US: Russell Sage Foundation.
- Eysenck, H. J. (1967). *The biological basis of personality*. Springfield, Ill.: Thomas.
- Fleeson, W., Malanos, A. B., & Achille, N. M. (2002). An intraindividual process approach to the relationship between extraversion and positive affect: Is acting extraverted as 'good' as being extraverted? *Journal of Personality and Social Psychology, 83*(6), 1409-1422. doi: 10.1037/0022-3514.83.6.1409
- Fritz, C., & Sonnentag, S. (2005). Recovery, Health, and Job Performance: Effects of Weekend Experiences. *Journal of Occupational Health Psychology, 10*(3), 187-199. doi: 10.1037/1076-8998.10.3.187
- Fritz, C., & Sonnentag, S. (2009). Antecedents of day-level proactive behavior: A look at job stressors and positive affect during the workday. *Journal of Management, 35*, 18.
- Fritz, C., Sonnentag, S., Spector, P. E., & McInroe, J. A. (2010). The weekend matters: Relationships between stress recovery and affective experiences. *Journal of Organizational Behavior, 31*(8), 1137-1162.

- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. G. (2006). The international personality item pool and the future of public-domain personality measures. *Journal of Research in Personality*, 40(1), 84-96. doi: <http://dx.doi.org/10.1016/j.jrp.2005.08.007>
- Hahn, V. C., Binnewies, C., Sonnentag, S., & Mojza, E. J. (2011). Learning how to recover from job stress: Effects of a recovery training program on recovery, recovery-related self-efficacy, and well-being. *Journal of Occupational Health Psychology*, 16(2), 202-216. doi: 10.1037/a0022169
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*: Guilford Press.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524. doi: 10.1037/0003-066X.44.3.513
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative big five trait taxonomy. *Handbook of personality: Theory and research*, 3, 114-158.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. *Handbook of personality: Theory and research*, 2(1999), 102-138.
- Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly*, 61(2), 121-140. doi: 10.2307/2787065
- Lucas, R. E., Diener, E., Grob, A., Suh, E. M., & Shao, L. (2000). Cross-cultural evidence for the fundamental features of extraversion. *Journal of Personality and Social Psychology*, 79(3), 452-468. doi: 10.1037/0022-3514.79.3.452
- Lucas, R. E., Le, K., & Dyrenforth, P. S. (2008). Explaining the extraversion/positive affect relation: Sociability cannot account for extraverts' greater happiness. *Journal of Personality*, 76(3), 385-414. doi: 10.1111/j.1467-6494.2008.00490.x
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52(1), 81-90. doi: 10.1037/0022-3514.52.1.81
- Meijman, T. F., & Mulder, G. (1998). *Psychological aspects of workload* (2nd ed. Vol. 2): Work psychology.
- Oerlemans, W. G. M., Bakker, A. B., & Demerouti, E. (2014). How feeling happy during off-job activities helps successful recovery from work: A day reconstruction study. *Work & Stress*, 28(2), 198-216. doi: 10.1080/02678373.2014.901993

- Rook, J. W., & Zijlstra, F. R. H. (2006). The contribution of various types of activities to recovery. *European Journal of Work and Organizational Psychology*, 15(2), 218-240.
- Scott, B., A., & Judge, T., A. (2010). Insomnia, emotions, and job satisfaction: A multilevel study. *Journal of Organizational Behavior*, 32(5), 24.
- Smillie, L. D., DeYoung, C. G., & Hall, P. J. (2015). Clarifying the Relation Between Extraversion and Positive Affect. *Journal of Personality*, 83(5), 564-574. doi: 10.1111/jopy.12138
- Smillie, L. D., Wilt, J., Kabbani, R., Garratt, C., & Revelle, W. (2015). Quality of social experience explains the relation between extraversion and positive affect. *Emotion*, 15(3), 339-349. doi: 10.1037/emo0000047
- Sonnentag, S. (2001). Work, recovery activities, and individual well-being: A diary study. *Journal of Occupational Health Psychology*, 6(3), 196-210. doi: 10.1037/1076-8998.6.3.196
- Sonnentag, S., & Bayer, U.-V. (2005). Switching Off Mentally: Predictors and Consequences of Psychological Detachment From Work During Off-Job Time. *Journal of Occupational Health Psychology*, 10(4), 393-414. doi: 10.1037/1076-8998.10.4.393
- Sonnentag, S., Binnewies, C., & Mojza, E. J. (2008). 'Did you have a nice evening?' A day-level study on recovery experiences, sleep, and affect. *Journal of Applied Psychology*, 93(3), 674-684. doi: 10.1037/0021-9010.93.3.674
- Sonnentag, S., & Fritz, C. (2007). The Recovery Experience Questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology*, 12(3), 204-221. doi: 10.1037/1076-8998.12.3.204
- Sonnentag, S., & Natter, E. (2004). Flight attendants' daily recovery from work: Is there no place like home? *International Journal of Stress Management*, 11(4), 366-391. doi: 10.1037/1072-5245.11.4.366
- Sonnentag, S., & Zijlstra, F. R. H. (2006). Job characteristics and off-job activities as predictors of need for recovery, well-being, and fatigue. *Journal of Applied Psychology*, 91(2), 330-350. doi: 10.1037/0021-9010.91.2.330
- Watson, D., & Clark, L. A. (1997). Extraversion and its positive emotional core. In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp. 767-793). San Diego, CA, US: Academic Press.
- Watson, D., & Clark, L. A. (1999). The PANAS-X: Manual for the positive and negative affect schedule-expanded form.

- Watson, D., Clark, L. A., McIntyre, C. W., & Hamaker, S. (1992). Affect, personality, and social activity. *Journal of personality and social psychology*, 63(6), 15.
- Zelenski, J. M., Santoro, M. S., & Whelan, D. C. (2012). Would introverts be better off if they acted more like extraverts? Exploring emotional and cognitive consequences of counterdispositional behavior. *Emotion*, 12(2), 290-303. doi: 10.1037/a0025169

APPENDIX A

IRB APPROVAL LETTER

Institutional Review Board
Dept. 4915
615 McCallie Avenue
Chattanooga, TN 37403-2598
Phone: (423) 425-5867
Fax: (423) 425-4052
instrb@utc.edu
<http://www.utc.edu/irb>

MEMORANDUM

TO: Mr. Robert Harste
Dr. Chris Cunningham **IRB # 15-113**

FROM: Lindsay Pardue, Director of Research Integrity
Dr. Bart Weathington, IRB Committee Chair

DATE: 10/21/15

SUBJECT: IRB #15-113: Socializing to Recover from Work Stress: The Benefits of Acting Extraverted

The IRB Committee Chair has reviewed and approved your application and assigned you the IRB number listed above. You must include the following approval statement on research materials seen by participants and used in research reports:

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 15-113.

Please remember that you must complete a Certification for Changes, Annual Review, or Project Termination/Completion Form when the project is completed or provide an annual report if the project takes over one year to complete. The IRB Committee will make every effort to remind you prior to your anniversary date; however, it is your responsibility to ensure that this additional step is satisfied.

Please remember to contact the IRB Committee immediately and submit a new project proposal for review if significant changes occur in your research design or in any instruments used in conducting the study. You should also contact the IRB Committee immediately if you encounter any adverse effects during your project that pose a risk to your subjects.

For any additional information, please consult our web page <http://www.utc.edu/irb> or email instrb@utc.edu

Best wishes for a successful research project.

APPENDIX B

SURVEY MEASURES GIVEN TO PARTICIPANTS

Default Question Block

Informed Consent Form

Purpose of the Study:

This study is being conducted by Robert Harste, a graduate student at The University of Tennessee at Chattanooga, under the supervision of Dr. Chris Cunningham. The purpose is to examine effects of engaging in social activities.

What will be done:

If you agree to participate you will be asked to respond to questions in a brief internet-based survey (likely to take no longer than 30 minutes to complete). This survey includes questions about your typical experiences socializing with others, as well as some questions about your general personality and stress-related experiences. Some demographic questions are also included so that we can accurately describe the characteristics of the final group of participants.

Benefits of this Study:

You will be contributing to a growing base of knowledge regarding the effects of social interactions with others.

What are the risks to me?

The risks of this study are anticipated to be limited to the potential inconvenience associated with completing the survey. If you feel uncomfortable with a question in the survey, you can skip that question or withdraw from the study altogether. Some questions in this survey ask you about emotions and feelings. If responding to such questions causes you to reach strongly in emotional ways, consider accessing available counseling resources in your community or on your local university campus.

Confidentiality:

Your responses to the survey will be kept completely confidential. You will be assigned a participant identification code, and this is the only identification that will be associated with your survey responses (we will not be asking for your name). Only the researchers will see your individual survey responses and these responses will be stored in a locked storage room.

Decision to quit at any time:

Your participation in this research is voluntary; you are free to withdraw from this study at any time. You also may choose to skip any questions that you do not wish to answer. If you decide to quit at any time before you have finished the questionnaire, however, your answers will NOT be recorded. We can only make use of fully complete surveys, so we greatly appreciate your full cooperation and participation.

How the findings will be used:

The results of this study will be used for research purposes only. Aggregated (not person level) results from the study will be presented in educational settings and at professional conferences, and the results may be published in a professional journal in the field of psychology.

Contact information:

If you have concerns or questions about this study, please contact the chair of UTC's Institutional Review Board, Dr. Bart Weathington at bart-weathington@utc.edu or 423-425-4289, or Dr. Chris Cunningham at Chris-Cunningham@utc.edu or 423-425-4264. By completing and returning this survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw your participation at any time without penalty.

Thank you in advance for your assistance and participation.

Sincerely,

Robert Harste
Chris Cunningham, Ph.D.
The University of Tennessee Chattanooga

The Institutional Review Board at The University of Tennessee at Chattanooga (FWA00004149) has approved this research project #15-113.

I have reviewed the information above and agree to participate in this research.

Yes

☐

No

☐

In a typical week, approximately how many hours do you spend involved in "work"?
Include any time spent in class, studying or doing school work, and working for pay.
Please round your response to the nearest hour and report only the number (e.g., 5).

In a typical week, approximately how many hours do you spend socializing with others?
Include any time spent engaged in social activities with friends, family members, or others.
Please round your response to the nearest hour and report only the number (e.g., 5).

The following questions ask you to think about your socializing experiences **yesterday**.

The term "socializing" refers broadly to any activity in which you interacted in a social manner, face-to-face, with other people.

Directions: Please indicate below, *in percentage terms*, how much time you spent socializing with others while at work and outside of work.

As an example, if you did not socialize with others while working yesterday, but you spent about half of your time outside of work with others, you might report 0% time socializing at work and 50% time socializing outside of work.

As you consider when you were "at work", include any time spent in class, studying or doing school work, or working for pay.

As you consider "outside of work", include time spent in any non-work activity.

	0	10	20	30	40	50	60	70	80	90	100
During work, how much of the time did you typically spend socializing?											
Outside of work, how much of the time did you typically spend socializing?											

Directions: Please select the response that best represents the degree to which you feel you "contributed" to your social activities with others yesterday, compared to others who were in the same group(s) with you.

Think of contribution as any participation you had or input you provided that was valued in some way by others in the group(s) you were with.

Significantly

About the

Significantly

less Much less Slightly less same Slightly more Much more more

☐ ☐ ☐ ☐ ☐ ☐ ☐

Directions: Please use percentage terms to answer the questions below, so that the sum of your responses would equal 100%.

When interacting with others socially yesterday...

	0	10	20	30	40	50	60	70	80	90	100
What percentage of time did you typically spend on <i>light-hearted, happy, or fun</i> topics?											
What percentage of time did you typically spend on <i>sad, depressing, or negative</i> topics?											
Total:											0

◀ ▶

The following items describe different feelings and emotions. Please read each item and then indicate the extent to which you felt this way yesterday.

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

The following questions ask you to think about your socializing experiences more broadly, **over the past 7 days**.

The term "socializing" refers broadly to any activity in which you interacted in a social manner, face-to-face, with other people.

Directions: Please indicate below, **in percentage terms**, how much time you spent socializing with others while at work and outside of work.

As an example, if you did not socialize with others while working during the past 7 days, but you spent about half of your time outside of work with others, you might report 0% time socializing at work and 50% time socializing outside of work.

As you consider when you were "at work", include any time spent in class, studying or doing school work, or working for pay.

As you consider "outside of work", include time spent in any non-work activity.

	0	10	20	30	40	50	60	70	80	90	100
During work, how much of the time did you typically spend socializing?											

Outside of work, how much of the time did you typically spend socializing?											

Directions: Please select the response that best represents the degree to which you feel you “contributed” to your social activities with others during the past 7 days, compared to others who were in the same group(s) with you.

Think of contribution as any participation you had or input you provided that was valued in some way by others in the group(s) you were with.

Significantly less	Much less	Slightly less	About the same	Slightly more	Much more	Significantly more
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Directions: Please use percentage terms to answer the questions below, so that the sum of your responses would equal 100%.

When interacting with others socially during the past 7 days...

	0	10	20	30	40	50	60	70	80	90	100
What percentage of time did you typically spend on <i>light-hearted, happy, or fun topics?</i>											
What percentage of time did you typically spend on <i>sad, depressing, or negative topics?</i>											
Total:											0

The following items describe different feelings and emotions. *Please read each item and then indicate the extent to which you felt this way over the past 7 days.*

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

Below are a number of descriptive statements that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others?

Directions: *Please choose the appropriate response option next to each statement to indicate the extent to which you agree or disagree with that statement.*

I am someone who...

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Is talkative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Tends to find fault with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Does a thorough job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is depressed, blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is original, comes up with new ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is reserved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is helpful and unselfish with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Can be somewhat careless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is relaxed, handles stress well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is curious about many different things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is full of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Starts quarrels with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is a reliable worker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can be tense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Is ingenious, a deep thinker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generates a lot of enthusiasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has a forgiving nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tends to be disorganized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worries a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has an active imagination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tends to be quiet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Is generally trusting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tends to be lazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is emotionally stable, not easily upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is inventive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

is inventive

Disagree
strongly

Disagree a
little

Neither agree
nor disagree

Agree a little

Agree
strongly

Below are a number of descriptive statements that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others?

Directions: Please choose the appropriate response option next to each statement to indicate the extent to which you agree or disagree with that statement.

I am someone who...

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Has an assertive personality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can be cold and aloof	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perseveres until the task is finished	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can be moody	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Values artistic, aesthetic experiences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is sometimes shy, inhibited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is considerate and kind to almost everyone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Does things efficiently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Remains calm in tense situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prefers work that is routine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is outgoing, sociable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is sometimes rude to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Makes plans and follows through with them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gets nervous easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Likes to reflect, play with ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Has few artistic interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Likes to cooperate with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is easily distracted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is sophisticated in art, music, or literature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly

Directions: Please use the rating scale below to describe how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
Make friends easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warm up quickly to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel comfortable around people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Act comfortably with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cheer people up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am hard to get to know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Often feel uncomfortable around others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoid contacts with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
Am not really interested in others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep others at a distance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Love large parties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk to a lot of different people at parties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enjoy being part of a	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

group	⤵	⤵	⤵	⤵	⤵
Involve others in what I am doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Love surprise parties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prefer to be alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
Want to be left alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't like crowded events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoid crowds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seek quiet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take charge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Try to lead others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can talk others into doing things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seek to influence others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
Take control of things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wait for others to lead the way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep in the background	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have little to say	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't like to draw attention to myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hold back my opinions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

Directions: Please use the rating scale below to describe how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
-----------------	-----------------------	---------------------------------	---------------------	---------------

Am always busy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am always on the go	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do a lot in my spare time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can manage many things at the same time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
React quickly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Like to take it easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Like to take my time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Like a leisurely lifestyle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
Let things proceed at their own pace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
React slowly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seek adventure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Love action	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enjoy being part of a loud crowd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enjoy being reckless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Act wild and crazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Willing to try anything once	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate
Seek danger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would never go hang gliding or bungee jumping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dislike loud music	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radiate joy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have a lot of fun	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Express childlike joy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Laugh my way through life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Love life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

Look at the bright side of life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Laugh aloud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amuse my friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am not easily amused	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seldom joke around	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very inaccurate	Moderately inaccurate	Neither inaccurate nor accurate	Moderately accurate	Very accurate

This scale consists of a number of words and phrases that describe different feelings and emotions. *Please read each item and then indicate to what extent you feel this way in general.*

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
Afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

Directions: Think about your typical experience during social activities. Please rate your agreement with each of the following statements.

During social activities...

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I forget about work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't think about work at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I distance myself from my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get a break from the demands of work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I kick back and relax.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do relaxing things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use the time to relax.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take time for leisure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learn new things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I seek out intellectual challenges.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do things that challenge me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do something to broaden my horizons.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I can decide for myself what to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I decide my own schedule.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I determine for myself how I will spend my time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take care of things the way that I want them done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

How accurate are each of the following statements at describing how you feel right now, at this moment?

	Not at all accurate	Moderately inaccurate	Slightly inaccurate	Neither accurate nor inaccurate	Slightly accurate	Moderately accurate	Completely accurate
I have been working so hard today that I am losing my ability to concentrate on what I am doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have been so busy working today that I am beginning to feel I am losing control over all the work I have to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my work were finished for today, I would still have trouble concentrating on other things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have worked so long and hard today that I do not have much attention left to give to my job tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work has taken so much effort today that I am having difficulty keeping my thoughts straight.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Despite my work efforts so far today, I am thinking as clearly as I was when I started working today.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It will be difficult for me to show interest in other							

people when I finish working today.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I stop my work for today I will need more than an hour to begin feeling recovered.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Not at all accurate	Moderately inaccurate	Slightly inaccurate	Neither accurate nor inaccurate	Slightly accurate	Moderately accurate	Completely accurate
When I stop my work for today, I hope other people will leave me alone for a little while.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After working today I will be too tired to start on other activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I need to step away from my work very soon because a break would help me function better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When work is finished today I will need some time by myself to start recovering and restoring myself before starting something else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Not at all accurate	Moderately inaccurate	Slightly inaccurate	Neither accurate nor inaccurate	Slightly accurate	Moderately accurate	Completely accurate

Finally, please respond to each of the following questions. This information will help us describe the overall sample of participants who assisted with this research.

Gender:

Male

☐

Female

☐

Age (please round to nearest year):

Relationship status:

Single

☐

Married/Living as married

☐

In a committed (serious)
relationship, but not
married

☐

Divorced/Widowed

☐

I am....

- ☐ Hispanic/Latino
- ☐ Non-Hispanic/latino

I identify most strongly as:

- ☐ White
- ☐ Black/African American
- ☐ Asian
- ☐ American Indian/Alaskan Native
- ☐ Native Hawaiian/Pacific Islander
- ☐ Middle Eastern/Arab

Number of dependents (please report the number of children and adults who depend on you for their care):

VITA

Robert Harste was born in Gainesville, Georgia, to parents Margaret Harste and Richard Harste. He attended LaGrange College, where he earned a Bachelor of Arts in Psychology in May 2010. Robert went on The University of Tennessee at Chattanooga to pursue a Master's of Science in Psychology, with a concentration in Industrial and Organizational Psychology. At UTC, he worked as a graduate assistant and instructor for the psychology department. Robert developed a research interest in Occupational Health Psychology and wishes to pursue a Ph.D. to continue researching in this field. Robert graduated from UTC in May 2016.