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# TWO ESSAYS ON LAY THEORIES OF THE VALENCE OF BUSYNESS

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TWO ESSAYS ON LAY THEORIES OF THE VALENCE  
OF BUSYNESS

## **ABSTRACT**

Consumers hold different lay theories about the valence of busyness. Two essays investigate antecedents and consequences of these lay theories. Essay 1 examines the frequency with which consumers hold these lay theories and demonstrates that holding a lay theory that feeling busy is good (vs. bad) leads to greater feelings of empowerment, which in turn increases volunteering behavior. Essay 2 focuses on antecedents of these lay theories and demonstrates that engaging in activities high (vs. low) on meaningfulness and low (vs. high) on stress increases consumers' tendency to hold the belief that feeling busy is good (vs. bad). Emotional attention moderates this effect in the sense that consumers high (vs. low) in emotional attention have less malleable lay theories. Consequently, making meaningfulness and stress salient does not influence consumers' beliefs about the valence of busyness for consumers high, but not low, in emotional attention. In addition, essay 2 shows that daily experiences that are high on meaningfulness and low on stress are associated with greater volunteering behavior, thus linking this essay to the findings of essay 1.

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## Chapter 1

# **OVERVIEW OF DISSERTATION**

John Maynard Keynes predicted that the grandchildren of his generation would only need to work three hours a day (Keynes, 1930). Although the world has seen phenomenal technological advancement in the past eighty-seven years, Keynes' prediction about the abundance of leisure time feels like a fantasy in our current "24-7 always-connected-to-work" world. There is a widespread perception that technologies that were developed to free up our time have made us busier (Wajcman, 2014; Alter, 2017). In fact, in the past several decades, people have increasingly reported that they feel they have not enough time to spare on leisure activities (Gershuny, 2005; Szollos, 2009). There is both anecdotal and scientific evidence supporting the growing busyness epidemic in modern society. According to a New York Times commentary, when people ask "How are you?" the default response is "Busy" (Kreider, 2012). Analyses of holiday letters revealed that references to busyness have increased since 1960s (Schulte, 2014). In 1975, 28% reported feeling "always rushed" and this number increased to 35% in 1998 (Mattingly & Sayer, 2006).

The consequences of feeling busy for individuals and society are remarkable. For example, busy consumers are more likely to sacrifice their supposedly less important activities (e.g. exercising, reading, volunteering, etc.), consume time-saving products (Zhong & DeVoe, 2010), and experience negative affect and stress (Lundberg, 1993; Zuzanek, 2004). The busyness epidemic is also one of the antecedents of lack of work-life balance which has repercussions for consumer well-being (Thompson & Bunderson, 2001; Guest, 2002; Blanchard, Blanchard & Edington, 1999; Fanning & Mitchener, 2001; Merrill & Merrill, 2003).

It is notable that while subjective feelings of busyness have increased in modern society, objective busyness has remained the same or has decreased (Wajcman, 2014; Vanderkam, 2010). For example, research suggests that the amount of paid work has decreased and people have more leisure hours in Western societies (Robinson & Godbey, 2005).

Given that feeling busy has become an iconic feature of modern society and even that some consumers actively seek a busy lifestyle (Bellezza, Keinan, & Paharia, 2017), an important question arises: are there any ways to help consumers mitigate the negative consequences of feeling busy without objectively changing how busy they are? The present dissertation seeks to (1) understand consumers lay theories of busyness, (2) advance a reframing strategy that consumers can use to alleviate the negative consequences of feeling busy and increase their orientation to prosociality and the greater good, and, (3) determine how consumers daily experiences of meaningful and stress in their lives inform their lay theories of the valence of busyness. I address these issues in the two essays that comprise this dissertation. The first essay, I illustrate that busyness is not a neutral state of being, but instead, consumers hold polarized views about the valence of busyness, either a lay theory that “busy=good” or “busy=bad.” In this essay, I then focus on the downstream consequences of holding these lay theories of the valence of busyness. I hypothesize that viewing busyness as a good thing leads to greater feelings of empowerment, which in turn leads to greater volunteering behavior.

In the second essay, I aim to understand the antecedents of such lay theories (i.e. how consumers form lay theories about the valence of busyness). In particular, I propose that daily consumer choices and experiences inform their theories about the valence of

busyness. We suggest that consumers who spend a larger portion of their time on activities high on meaningfulness and low on stress are more likely to hold the lay theory that feeling busy is good. In contrast, consumers who spend a larger portion of their time on activities that are high on stress and low on meaningfulness are more likely to hold the lay theory that feeling busy is bad. Moreover, we propose that emotional self-awareness or emotional attention moderates the effect of meaningfulness and stress on lay theories of busyness. For consumers high on emotional attention, we show that the theories of busyness they hold are fixed, not malleable, and not influenced by the salience of meaningfulness/stress manipulations. In contrast, for consumers who score low on emotional attention, making the stress and meaningfulness in their daily life salient informs the theory of the valence of busyness that they hold. Figure 1 illustrates the overarching conceptual framework of this dissertation.

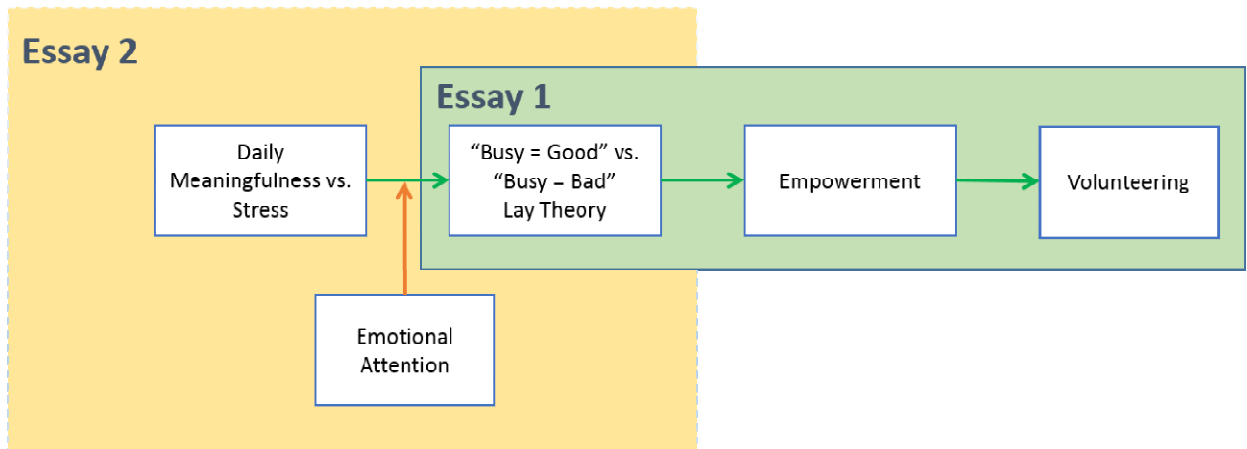


Figure 1: The Conceptual Model of the Dissertation

## CHAPTER 2

### **REVIEW OF KEY CONSTRUCTS**

## *EMPOWERMENT*

The concept of empowerment has been extensively studied in the organizational research (Dewettinck, Singh, & Buyens, 2003). To empower literally means “to give power.” Early empowerment literature defined it as a process of providing power to the employees (Sagie & Koslowsky, 2000). However, in the past three decades empowerment research has identified different dimensions of empowerment beyond granting authority.

Menon (2001) distinguishes among three manifests of empowerment: 1) an act of granting power to the individual(s) being empowered, 2) a process that results in the experience of power, and 3) a psychological state. From a managerial point of view, empowerment involves delegation of responsibilities down to employees so that they have more decision-making authority (Leach, Walk, & Jackson, 2003). This form of empowerment has been referred to as structural empowerment. On the other hand, from a psychological perspective, empowerment has been conceptualized as intrinsic task motivation (Conger & Kanungo, 1988; Thomas & Velthouse, 1990). This form of empowerment is referred to as psychological empowerment (Seibert, Silver, & Randolph, 2004)).

Laschinger, Finegan, Shamian, and Wilk (2004) suggest that the two conceptualizations of empowerment (e.g. structural and psychological) are different in that “structural empowerment is the perception of the presence or absence of empowering conditions in the workplace” while “psychological empowerment is the employees’ psychological interpretation or reaction to these conditions (p. 529). Similarly, Zimmerman

(1995) distinguishes between the two conceptualizations by identifying structural empowerment as a process and psychological empowerment as an outcome.

In this research, we specifically focus on psychological empowerment among consumers. Psychological empowerment has been defined as “a process by which individuals gain mastery and control over their lives, and a critical understanding of their environment” (Zimmerman et al., 1992, p. 708). Rappaport and Zimmerman (1988) conceptualize it as the confluence of the three components of perceived control: Motivational (i.e. desire to control the environment), personality (e.g. locus of control), and cognitive (e.g. self-efficacy) component. They found that greater psychological empowerment was associated with greater organizational citizenship behavior. Drawing on this conceptualization, Spreitzer (1995) identified four cognitions for empowerment: meaning, competence, self-determination, and impact. Menon (2001) defined it as “a cognitive state characterized by a sense of perceived control, competence, and goal internalization” (p. 161).

Spreitzer (1995) developed a four-dimensional measure of psychological empowerment based on the four cognitions identified above. Meaningfulness is about feelings of having purpose that emerge when there is a fit between one’s responsibilities and values. Competence is about feelings of self-efficacy when it comes to a specific role or responsibility. Impact is conceptualized as the ability to influence outcomes at work. Self-determination is a sense of autonomy and choice over how work is done.

Research on psychological empowerment in marketing literature is surprisingly rare. An exception is Patrick and Hagtvædt (2012) who found that framing refusal as “don’t” vs. “can’t” leads to greater psychological empowerment and enhances goal-

directed behavior. In this dissertation, we identify an antecedent of psychological empowerment, namely lay theories about the valence of busyness. We predict and demonstrate that holding a lay theory that feeling busy is good leads to greater feelings of empowerment which in turn enhances volunteering behavior.

### *LAY THEORIES*

Lay theories are fundamental assumptions that people hold about a phenomenon. Research has identified a large number of lay theories that people hold about the nature of their self and social world. Through these lay theories, people construct a cognitive and affective meaning system to make sense of the world and navigate their social life (Molden & Dweck, 2006). Work by Dweck and her colleagues has identified a wide range of lay theories that people hold. Particularly, this stream of research has identified two broader lay theories. Entity theorists believe that the target phenomenon (e.g. intelligence) is fixed and unchangeable. In contrast, incremental theorists believe that the target phenomenon is malleable and has the potential for change (Molden & Dweck, 2006). Research has identified consequences of holding incremental vs. entity theories for a wide range of traits and attributes such as intelligence (Blackwell, Trzesniewski & Dweck, 2007), self-regulation (Dweck, 1999), relationships (Knee, Patrick & Lonsbary, 2003), memory (Werth & Förster, 2002), and social skills (Rhodewalt, 1994).

These beliefs have important consequences for how individuals regulate their self and social behavior. For example, individuals who believe self-control is a limited (vs. unlimited) resource set fewer New Year's resolutions. Similarly, individuals who believe that their willpower is unlimited (vs. limited) are not prone to ego-depletion following a

depleting experience (Job, Dweck, & Walton, 2010). People also have lay theories about the cause of obesity. Laypeople who believe that lack of exercise (vs. poor diet) is the major cause of obesity, have greater body mass index (McFerran & Mukhopadhyay, 2013).

### *MEANINGFULNESS*

The experience of meaning in life is critical for healthy human functioning (Steger, 2009). The literature in psychology and related fields have observed a growing interest in meaningfulness in the past few decades. Meaningfulness plays a central role in eudaimonic well-being. Consequently, recent research on positive psychology has identified a plethora of antecedents and consequences of meaningfulness. The field has provided several definitions for meaningfulness that vary in terms of their focus. Meaningfulness has been defined in terms of purpose, significance, or as a multifaceted notion (Steger, 2009).

The first approach to conceptualization of meaningfulness is a motivational approach. Frankl's conceptualization of meaning (1963) focuses on meaning as having a sense of purpose. In this sense, meaning is defined as pursuit of the most important aims in life. The second conceptualization of meaning, significance, focuses on how people cognitively make a sense of their lives. In this view, meaning is what life signifies to people and how one discerns and processes information from his/her life. This nuanced view of meaningfulness is concerned about how individuals mentally represent and attach meaning to the dynamic and unstable world by establishing relationship between their selves and external world elements (Heine, Proulx, & Vohs, 2006). The third conceptualization of meaningfulness defines it as a motivational, cognitive, and affective response to life. In this perspective, meaning is "the ability to perceive order and coherence in one's existence,

along with the pursuit and achievement of goals, and feelings of affective fulfillment arising from such coherence and pursuits (Steger, 2009, p. 681).

### *Antecedents of Meaningfulness*

Past research has identified a number of antecedents for meaningfulness. Baumeister and Vohs (2002) suggested that satisfying one's needs in four domains gives rise to meaning in life: having a sense of purpose, having a sense of self-worth, having a value system to distinguish between what is right and wrong, and having a sense of self-efficacy. Frankl (1963) suggested that having unique and creative endeavors in life, elevating experiences and sufferings give rise to a meaningful life. Hicks and King (2009) identified positive affect and social relatedness as two sources of meaning in life. In a similar vein, social closeness and belonging have been shown to lead to perceptions of one's life as meaningful (Lambert et al., 2013; Twenge, Catanese, & Baumeister, 2003). Recent research found that meaningfulness also serves as a source of positive social relationships (Stavrova & Luhmann, 2016), suggesting cyclical relationship between meaningfulness and social connectedness. The true self (Schlegel, Smith, & Hirsch, 2013), spirituality, transcending self-interests, and achievements (Emmons, 2003) have been also linked to meaning in life.

### *STRESS*

Although the stress levels of Americans on average has been on the decline (American Psychological Association, 2015), many Americans are living with stress levels higher than a healthy level. In 2012, 22% of Americans reported feeling extreme stress. Indeed, stress is a key driver of chronic illnesses which comprises of 75% of healthcare costs (American Psychological Association, 2012).

Stress is defined as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being” (Lazarus & Folkman, 1984, p. 19). According to this definition, existence of a stressor is a prerequisite to the experience of stress but a stressor may or may not lead to stress depending on the person’s coping abilities and availability of buffers (Lazarus, 1966).

Stress has been found to result in a number of health risk factors through several mechanisms (Kelly, Hertzman, & Daniels, 1997). There are two broad health risk factors that link stress to health risk factors: 1) behavioral mechanisms such as unhealthy eating, and smoking; 2) health conditions such as obesity and high blood pressure. Research has found that stress is related to health conditions that give rise to chronic illnesses (Ingram, 2015).

Stress is also linked to individual well-being through other mechanisms. For example, stress has been shown to lead to perceptions of time scarcity (Szollos, 2009, Etkin, Evangelidis, & Aaker, 2015). Perceived time scarcity is linked to depression (Roxburgh, 2004), impatience (House, DeVoe, & Zhong, 2014), and lower volunteering (Rudd, Vohs, & Aaker, 2012) which is associated with lower well-being and negative health outcomes (Stephan, 1991).

### *EMOTIONAL ATTENTION*

Emotional attention refers to the extent to which an individual attends to and reflects on his/her affective states (Boden, Gala, & Berenbaum, 2013). It is an underlying

dimension of several constructs such as emotional intelligence, alexithymia, and mood awareness (Coffey, Berenbaum, & Kerns, 2003).

Research suggests that emotions directly influence individuals' cognitive processes (Boden & Berenbaum, 2007; Forgas, 1994; Miranda, Gross, Persons & Hahn, 1998). Importantly, changes of arousal, valence and type of emotion and mood influence belief content and conviction (Berenbaum, Boden, & Baker, 2009). For example, affect-as-information theory (Clore et al., 2001) suggests that affective states influence individuals' inferences and judgments about target objects. Emotional attention influences how affective states inform judgments. Affect-as-information theory suggests that higher emotional attention makes feelings more accessible (White & McFarland, 2009) and leads to greater reliance on emotions when one evaluates a target object (Gohm & Clore, 2000; 2002). For example, Gohm and Clore (2002) found that negative mood enhanced risk estimations for participants high, but not low, in emotional attention.

## CHAPTER 3

### ESSAY 1:

**“BUSY = GOOD” OR “BUSY = BAD”?**  
**LAY THEORIES ABOUT THE VALENCE OF BUSYNESS**  
**INFLUENCE VOLUNTEERING**

Our city's problems are many  
 Solutions seem painfully few  
 It's so easy to find yourself wailing  
 "Where to start; there's too much to do."

Yet for one group the answer seems simple  
 Their direction is always quite clear  
 They reach out their hands when the need comes  
 They're first to volunteer.

- *An extract from the poem "YWCA Volunteers" by Barbara Armitage*

In the poem above, who is the group that reaches out their hands to volunteer? What makes them more likely to volunteer? An intuitive conjecture is that these are individuals whose schedules are not already full or who have "nothing better to do" and hence raise their hands to volunteer. In line with this conjecture, much evidence points to busyness as a major barrier to volunteering (Johnson, 2004; Paolicchi, 1995; Points of Light Foundation, 2000; Strober & Weinberg, 1980; Sundeen, Raskoff, & Garcia, 2007). For instance, data from 15,482 persons aged 15 and over who completed the Canada Survey of Giving, Volunteering, and Participating in 2010 identified "did not have the time" as a key reason why 67% of non-volunteers did not volunteer and 74% of volunteers did not volunteer more (Vézina & Crompton, 2012).

However, while *not* volunteering is commonly attributed to busyness, there is contrary evidence suggesting a positive relationship between busyness and volunteering. For instance, the 2007 Volunteering in America report found that busy individuals are the most likely to volunteer (Corporation for National and Community Service, 2007). Research also shows that part-time employees volunteer at a higher rate than do people without jobs (Independent Sector, 1992, 2003; Johnson, Foley, & Elder, 2004; Robinson & Godbey, 1997; Vaillancourt, 1994). Indeed, the 2005 Current Population Survey of

volunteering found that 38.2% of part-time workers had volunteered in the past twelve months compared to 24.4 % of those not in the labor force (Bureau of Labor Statistics, 2005). Moreover, among those who reported working forty hours a week or more, researchers have observed a positive relationship between work hours and volunteer hours, such that the more hours people worked, the more hours they volunteered (Wilson & Musick, 1997). In an example close to home, reviewers for academic journals (volunteers) are often also the most prolific (busy) researchers (Lindsey, 1976). Taken together, this inconsistency between non-volunteers attributing their behavior to busyness and the findings that busy people are more likely to volunteer suggests that there might be factors other than people's actual busyness (i.e., their objective busyness) that influence the link between busyness and volunteering. The present research seeks to help resolve this inconsistency.

We propose that feelings of busyness are subjective and that how people perceive the valence of feeling busy (i.e., as being good vs. bad) influences their volunteering behavior. In other words, rather than try to free up people's time and change their objective busyness, we suggest a more pragmatic approach to encourage volunteering. We illustrate that merely shifting people's beliefs about the feeling of busyness—such that the feeling of busyness is perceived as a good (vs. bad) thing—can increase their willingness to volunteer. Towards this end, we approach the study of volunteering and busyness through a lay theories lens, investigating and manipulating the valence of attitudes towards the feeling of busyness and examining the effects that these different conceptualizations of busyness have on volunteering.

We present eight studies to support our theorizing. We predicted and found that those who hold the lay theory that “busy = good” (vs. “busy = bad”) are more inclined to volunteer. Our studies also provide insight into the mechanisms underlying this effect: Holding the lay theory that “busy = good” (vs. “busy = bad”) enhances feelings of psychological empowerment which in turn increases the likelihood of volunteering (see Figure 2 for the conceptual model). Studies 1a-1d show that both lay theories—“busy = good” and “busy = bad” —naturally exist within the population. Studies 2-4 manipulate the extent to which people hold these lay theories of busyness and demonstrate the predicted effect that shifting these theories has on people’s feelings of empowerment and volunteering.

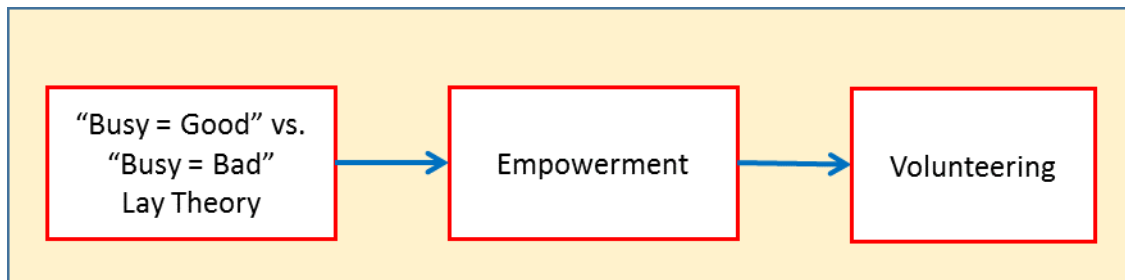


Figure 2: The Conceptual Model of Essay 1

This research seeks to make theoretical contributions to the volunteering, lay theory, and busyness literatures. First, our work contributes to the volunteering literature by uncovering a novel insight about the relationship between busyness and volunteering: The lens with which consumers view busyness has a significant effect on their volunteering behavior. Second, our research contributes to the lay theories literature by investigating lay

theories in a new domain—busyness. In particular, our findings suggest that consumers naturally hold different lay theories about busyness and that this can determine their volunteering intentions. From a practical standpoint, our work offers a novel, simple, and effective volunteering intervention. Our general finding is that when people hold the lay theory that “busy = good,” they are more likely to belong to the group that Armitage refers to in her poem as those who “reach out their hands when the need comes” than when they hold the lay theory that “busy = bad.” In sum, this research illustrates that simply changing the way we view our busyness can enhance our empowerment and willingness to act for the greater good.

### *CONCEPTUAL DEVELOPMENT*

People hold fundamental assumptions about causes and consequences of many phenomena and they use these assumptions to construct systems of meaning of events and objects in their environment through which they perceive the world and guide their actions (Molden & Dweck, 2006). These assumptions, referred to as lay theories, can significantly affect judgment and behavior (Dweck, 1999). For example, research suggests that people differentially believe that a lack of exercise or poor diet is the main cause of obesity; people who believe the former theory tend to consume more food and therefore are more overweight than people who believe the latter theory (McFerran & Mukhopadhyay, 2013). The promise of a lay theories approach is that it accepts that not all people view a phenomenon in the same way. Therefore, it is possible to investigate the effect that different views of an event, feeling, or situation have on its consequences. Interestingly, it is also possible to experimentally induce a lay theory, even if people ordinarily hold the

opposite theory (Dweck, 1999). In this way, experimental manipulation of theories can lead to robust causal conclusions about the consequences of lay theories. For example, Deval et al. (2013) found that priming individuals with different naïve theories about market phenomena led them to make opposing judgments of a product based on the same product information.

### *Lay Theories of the Valence of Busyness*

The current research investigates a specific set of lay theories about busyness; namely, lay theories about the feeling of busyness that differ in valence. Different people often hold oppositely-valenced beliefs about the same issue. For instance, some people believe perfectionism is a good goal to pursue while others do not (Bieling, Israeli, & Antony, 2004), some people believe trust in others is essential while others do not (Good, 2000), some people support political attitudes like pro-abortion practices while others vehemently oppose them (Meffert, Guge, & Lodge, 2004), and some people believe that quality of life during old age is worth looking forward to while others simply do not (Bowling & Gabriel, 2007). Even lay theories about whether the consumption of red wine is good for you or not can widely differ (Schamberg, 2015).

The feeling of busyness refers to the feeling of being in a constant functional, action-oriented state (Darrah, Freeman, & English-Lueck, 2007)—the feeling of being engaged in activities (vs. being idle) and having many things to do (Hsee, Yang, & Wang, 2010; Wilcox et al., 2016). Given that busyness is a subjective feeling, we propose that people can hold different lay theories about the valence of busyness: Some people perceive the feeling of busyness as a good thing, while others perceive the feeling of busyness as a bad thing. There is ample evidence for the existence of both lay theories. For instance, the

popular press and some sociological research views busyness as a negative phenomenon (Kreider, 2012; Kasser & Sheldon, 2009; Szollos, 2009) and urges people to avoid a busy lifestyle (Kreider, 2012; Rankin, 2014). Moreover, in line with social commentators, psychology and sociology researchers generally argue that busyness is a widespread issue that has detrimental consequences for society and an individual's well-being (Szollos, 2009; Roxburgh, 2004). Recently, however, a few experimental articles have found support for the notion that busyness can have downstream benefits for consumers (Hsee et al., 2010; Wilcox et al., 2016). For instance, Hsee et al. (2010) suggest that people prefer busyness over idleness and are happier when they are busy than when they are idle. Wilcox et al. (2016) also suggest that busyness diminishes the sense of failure elicited by a missed deadline and, by hindering this sense of failure, maintains motivation and reduces the time it takes to complete tasks. Notably, these studies are about the downstream consequences of busyness (vs. idleness) and not about whether the feeling of busyness itself is seen as good or bad.

In our research, we instead focus on the effect of holding lay theories about the valence of busyness (i.e. feeling busy is “good” vs. “bad”) on one's sense of empowerment and volunteering behavior. Specifically, we propose that when people hold the lay theory that “feeling busy is good” (vs. “feeling busy is bad”), they feel more empowered. We also propose that this greater empowerment in turn results in a greater likelihood of them volunteering to help others. In sum, we theorize that the lens with which an individual perceives the feeling of being busy can have downstream consequences for volunteering. In the sections that follow, we demonstrate the logical links between the different constructs comprising our conceptual framework (see Figure 2).

*Valence of Busyness Beliefs and Psychological Empowerment*

The term empowerment literally means “to give power to.” It has been the subject of extensive research in the organizational sciences (Kanter, 1989; Perkins & Zimmerman, 1995; Seibert, Silver, & Randolph, 2004) and researchers have defined it as “a process by which individuals gain mastery and control over their lives, and a critical understanding of their environment” (Zimmerman et al., 1992, 708). In their conceptualization of psychological empowerment, Zimmerman and Rappaport (1988) measured the construct using personality, motivational, and cognitive aspects of “perceived control.” Perceived control and its personality, motivational, and cognitive aspects are also a staple of a large body of psychological empowerment research (Menon, 2001; House, 1988; Patrick & Hagtvedt, 2012).

In the current research, we similarly conceptualize psychological empowerment as perceived control over one’s life outcomes. As we have argued, people hold differently-valenced lay theories about busyness; but we also propose that people who hold the lay belief that “busy = good” (vs. “busy = bad”) feel more empowered. Several streams of research can explain how the “busy = good” belief might lead to enhanced feelings of empowerment. For instance, experiencing flow—a state wherein one should view the feeling of busyness as a good thing—is associated with feelings of control over the moment (Csikszentmihalyi, 1991, Csikszentmihalyi, 1997). Indeed, even individuals involved in repetitive and meaningless tasks can actively transform the way they handle these tasks to experience a transcendental, exhilarating state that gives rise to a sense of control over their life (Csikszentmihalyi, 1991).

For individuals who believe that “busy = bad,” busyness becomes a necessary evil which is perceived as a threatening situation. Research suggests that threatening situations narrow one’s focus and deploy cognitive and emotional resources to deal with the immediate threat (LeDoux, 1995). Thus, holding the lay theory that “busy = bad” should inhibit deployment of resources and lead to a lack of control (Mullainathan & Shafir, 2013). In contrast, holding the lay belief that “busy = good” liberates one’s resources and makes them feel in control and psychologically empowered. In other words, we propose that holding the belief “feeling busy = good” (vs. “feeling busy = bad”) can result in individuals feeling more empowered (i.e., that they have greater control over their lives).

#### *Psychological Empowerment and Volunteering*

Engagement in volunteering activities requires certainty about outcomes and how it influences one’s own life. Individuals who are psychologically empowered feel greater control over their lives and, therefore, are more likely to engage in volunteering activities. Feeling empowered could also increase self-efficacy which will facilitate volunteering by reducing uncertainty about the outcomes (Grant & Gino, 2010).

Related work on attachment theory might also lend some support for the link between empowerment and volunteering. According to attachment theory (Bowlby, 1969), only when individuals feel secure and in control themselves will they reach out to satisfy other people’s needs (Erez, Mikulincer, van Ijzendoorn, & Kroonenberg, 2008; Wilson, 2012). Moreover, organizational research suggests that psychologically empowered employees are more likely to engage in organizational citizenship behavior (Chiang & Hsieh, 2012; Morrison, 1996; Bogler & Somech, 2004). Therefore, individuals who feel greater control over their lives are more likely to volunteer their time to help others.

In summary, to explain the relationship between volunteering and lay theories about the valence of busyness, we hypothesize a mediation model such that (1) holding the lay belief that “busy = good” (vs. “busy = bad”) leads to greater feelings of empowerment, and (2) feeling more psychologically empowered leads to a greater volunteering intentions and behavior.

### *OVERVIEW OF EXPERIMENTS*

We present eight studies to support our theorizing. Studies 1a-1d demonstrate that people do indeed naturally hold different lay beliefs about the valence of busyness. In addition to showing that people are split in their lay theories about the valence of busyness, study 1a uses a correlational design to measure the valence of the lay theory that people hold and associate it with empowerment. Study 1b replicated the results of study 1a in a different population. Studies 1c and 1d serve to show that people hold clear lay theories about the valence of busyness. Study 2 is a proof-of-principle study that manipulates the valence of people’s lay theory of busyness and shows how this affects their sense of empowerment. In this and our other experimental studies, we followed the same protocol used in prior lay theories research (Mukhopadhyay & Johar, 2005; Labroo & Mukhopadhyay, 2009) to establish the causal effects of lay theories about the valence of busyness. Using measures of actual volunteering behavior, study 3a demonstrates that holding the lay theory that “busy = good” (vs. “busy = bad”) increases intentions to volunteer and that this effect is statistically accounted for by feelings of empowerment. Study 3b conceptually replicates the results of study 3a in a different population and serves

as a test of theory specificity by demonstrating that holding the lay theory that “busy=good” (vs. “busy = bad”) leads to greater intentions to volunteer time, but not to donate money. Last, study 4 manipulates both lay theories and empowerment to provide further support for the mediating role of empowerment.

### *STUDY 1A*

A key objective of study 1a was to ascertain the frequency with which different beliefs about the valence of busyness are generally held by adult consumers. Further, by measuring the extent to which people instinctively believe that “busy = good” (vs. “busy = bad”) and assessing feelings of empowerment, this study tested whether holding the lay theory that “busy = good” (vs. “busy = bad”) is correlated with feeling more empowered.

#### *Participants and Procedure*

Seventy-six undergraduate students (65% female;  $M_{\text{Age}} = 22.39$ ,  $SD_{\text{Age}} = 2.49$ ) participated in exchange for extra course credit. The study used a correlational design.

We asked participants to complete a survey. At the beginning of the survey, participants read that people may differ in their attitude toward feeling busy. They then saw two sets of statements (across participants, we counterbalanced the order in which the two sets were presented and, within each set, randomized the order of the statements). One set was labeled “Feeling busy is bad” and participants were told that this set included statements that people who believe “feeling busy is bad” might make (e.g., “I hate the nagging feeling of being busy” and “Feeling busy feels awful”). The other set was labeled “Feeling busy is good” and participants were told that this set included statements

that people who believe “feeling busy is good” might make (e.g., “Feeling busy makes me feel alive” and “I love the feeling of being busy”). The full stimuli are shown in Appendix A.

After reading both sets of statements, participants indicated the extent to which they personally held each theory (1 = *Strongly disagree*, 7 = *Strongly agree*): “Feeling busy is good for me” and “Feeling busy is bad for me” (reverse-scored). These two items were averaged to create a “busy = good” index ( $\alpha = .75$ ). Participants also indicated which of these two camps (0 = *Feeling busy is bad*, 1 = *Feeling busy is good*) they believed most people more strongly identify with. Last, participants reported their feelings of empowerment (1 = *Not at all*, 7 = *Very much*): “I feel empowered,” “I feel in control of my time,” and “I feel in charge.” These three items, adapted from Patrick and Hagtvedt (2012), were averaged to form an empowerment index ( $\alpha = .83$ ).

### *Results and Discussion*

*Lay theories of busyness.* To ascertain participants’ beliefs about the extent to which the feeling busy is good (vs. bad) lay theory is generally held, we analyzed participants’ responses to the item that asked them which camp they believed most people more strongly identify with. The results revealed that 50% of participants believed that the majority of people believe that “feeling busy is bad” and 50% indicated that the majority of people believed that “feeling busy is good.”

*Empowerment.* Using the “busy = good” index ( $M = 4.88$ ,  $SD = 1.28$ ) and the empowerment index ( $M = 4.76$ ,  $SD = 1.25$ ), we then tested whether the extent to which participants personally held the lay theory that feeling busy is good (vs. bad) was correlated with feelings of empowerment. In line with our predictions, the results revealed that more

strongly believing that “feeling busy = good” was associated with feeling more empowered ( $r = .39, p < .01$ ).

*Discussion.* Taken together, the results of this study provided initial evidence in support of two important propositions. First, the notion that there is no single belief about the valence of busyness was supported by the finding that participants were split in their beliefs about what theory most people more strongly identify with (i.e., 50% said feeling busy is good and 50% said feeling busy is bad). Second, in allowing participants to indicate the strength of their personal belief in each lay theory, our findings also supported the notion that the extent to which people hold these theories about the valence of busyness do indeed matter: A stronger belief that “busy = good” (vs. “busy = bad”) was associated with people feeling more empowered.

## *STUDY 1B*

The objective of study 1b was to provide further support for our findings in study 1a about the frequency with which consumers hold the busy = good and busy = bad lay theories. Importantly, in this study we replicated study 1a in a different population sample.

### *Participants and Procedure*

One hundred and three Mechanical Turk panelists (62.7% female;  $M_{\text{Age}} = 37.6$ ,  $SD_{\text{Age}} = 12.6$ ) participated in this study. The study used the same design and stimuli as study 1a.

Similar to study 1a, after reading both set of statements, participants indicated the extent to which they personally held each theory using the same 2-item scale that was used

in study 1a. Participants also indicated which of these two camps (0 = *Feeling busy is bad*, 1 = *Feeling busy is good*) they believed most people more strongly identify with. Last, participants reported their feelings of empowerment using the same 3-item scale of study 1a.

### *Results and Discussion*

*Lay theories of busyness.* To ascertain participants' beliefs about the extent to which the feeling busy is good (vs. bad) lay theory is generally held, we analyzed participants' responses to the item that asked them which camp they believed most people more strongly identify with. The results revealed that 39.8% of participants believed that the majority of people believe that "feeling busy is bad" and 60.2% indicated that the majority of people believed that "feeling busy is good."

*Empowerment.* Using the "busy = good" index ( $M = 5.03$ ,  $SD = 1.42$ ) and the empowerment index ( $M = 4.84$ ,  $SD = 1.59$ ), we then tested whether the extent to which participants personally held the lay theory that feeling busy is good (vs. bad) was correlated with feelings of empowerment. In line with our predictions, the results revealed that more strongly believing that "feeling busy = good" was associated with feeling more empowered ( $r = .43$ ,  $p < .001$ ).

*Discussion.* Taken together, the results of this study provided further evidence in support of two important propositions. First, we replicated our findings about the notion that there is no single belief about the valence of busyness. 39.8% of participants believed that most people strongly identify with "busy = bad" lay theory and 60.2% believed that most people strongly identify with the "busy = good" lay theory. Second, our findings also

suggested that a stronger belief that “busy = good” (vs. “busy = bad”) was associated with people feeling more empowered.

### *STUDY 1C*

In study 1a and 1b participants were asked to choose either “busy = good” or “busy = bad” lay theories. We acknowledge that participants might not have a clear lay theory about the valence of busyness and either randomly selected one of the theories, or their choice reflected the lay theory they supported more. In order to rule out these possibilities, in this study we provided participants with a third option (i.e. “other”). Another objective of this survey was to test the frequency with which consumers hold these lay theories in a different culture. Research suggests that perceptions of time and busyness varies across cultures (Levine, 1997; Bellezza et al., 2017). Therefore, it is worthwhile to examine whether consumers in a different culture have different lay theories about the valence of busyness.

#### *Participants and Procedure*

Fifty-nine undergraduate students of a Belgian university (64.4% female;  $M_{\text{Age}} = 24.6$ ,  $SD_{\text{Age}} = 8.1$ ) participated in this study. The study design and stimuli were identical to study 1a and 1b except that participants could choose among three choices instead of two choices: 1) “Feeling busy is bad,” 2) “Feeling busy is good,” 3) “Other.” Participants who chose “other” were also asked to explain their choice.

### *Results and Discussion*

*Lay theories of busyness.* The results showed that 28 (47.5%) of participants believed that the majority of people believe that “feeling busy is bad” and 31 (52.5%) of them indicated that the majority of people believed that “feeling busy is good.” No participants indicated the “other” option.

*Discussion.* The results of this study provided further evidence in support of our proposition that people have a clear theory about the valence of feeling busy. All participants believed that the majority of people either hold the “busy = good” or the “busy = bad” lay theory. This study also replicated our findings in another population suggesting that our results hold across different cultures.

### *STUDY 1D*

The objective of study 1d was to rule out an alternative explanation for our findings. Importantly, in the previous studies participants were asked to choose one of the lay theories about feeling busy. It is possible that participants had non-valenced beliefs about feeling busy. In other words, when thinking about feeling busy they don’t think about it as a bad or good thing. To rule out this possibility, in this study we asked participants to respond to an open-ended question that didn’t prime any positive or negative things about feeling busy. If people hold strong attitudes about the valence of feeling busy, they should reflect on their theories even when the question does not prime any of those theories.

### *Participants and Procedure*

One hundred and three Mechanical Turk panelists (61.8% female;  $M_{\text{Age}} = 38.2$ ,  $SD_{\text{Age}} = 12.6$ ) participated in this study. We asked participants to reflect on feeling busy using an open-ended question: “What do you think about feeling busy?”

### *Results and Discussion*

*Lay theories of busyness.* We coded participants’ responses to the open-ended question and grouped them into four categories: 1) “Busy = good,” 2) “Busy = bad,” 3) Mixed, 4) Non-valenced. The responses that expressed both good and bad things about feeling busy were categorized as “mixed.” Responses that didn’t mention any good or bad things about feeling busy (e.g. “When I am busy my day is filled”) were categorized as “non-valenced.” The results revealed that 38.8% of participants’ reflections were categorized as “busy = bad,” 32.0% of them were categorized as “busy = good,” 8.7% of them were categorized as “mixed,” and 20.4% of them were categorized as non-valenced.

*Discussion.* The results of this study provided evidence that consumers hold valence-laden lay theories about feeling busy. The majority of respondents (70.8%) reflected on feeling busy as either a good or a bad thing. Only 8.7% of responses didn’t include any references to “busy = good” or “busy = bad” beliefs. Indeed, these results rule out alternative explanations for our findings in study 1a and 1b. Namely, it suggests that the majority of consumers have a clear valence-laden lay theory about feeling busy.

## STUDY 2

The objective of study 2 was to conceptually replicate the results of study 1a and 1b in an experimental setting. In particular, study 2 sought to manipulate people's lay theories about the valence of feeling busy so as to provide further support for the hypotheses that holding the lay theory that "busy = good" (vs. "busy = bad") enhances people's feelings of empowerment.

### *Participants and Procedure*

One hundred fifty-five undergraduate students (56.5% female;  $M_{Age} = 21.9$ ;  $SD_{Age} = 3.68$ ) participated in this study in exchange for extra course credit. The study used a 2-cell between subject design in which beliefs about the valence of busyness were manipulated to be either positive or negative. Following guidelines established by prior research (Mukhopadhyay & Johar, 2005), sixteen participants who strongly disagreed with the manipulated lay theory were not included in the analyses.

Participants were asked to complete two ostensibly unrelated surveys. In the first survey, participants were randomly assigned to either the "busy = good" or "busy = bad" condition. To manipulate participants' "busy = good" versus "busy = bad" lay beliefs, participants listened to an ostensibly real science podcast wherein a psychologist discussed recent research on busyness. Those in the "busy = good" condition listened to a version of the podcast that was designed to strengthen people's belief that feeling busy was a good thing, whereas those in the "busy = bad" condition listened to a nearly identical version of the podcast that was designed to strengthen people's belief that feeling busy was a bad thing. For instance, those in the "busy = good" ["busy = bad"] condition heard that "people

who felt extremely busy in the previous year had a 43 percent increased risk of dying, but that was only true for the people who also believed that feeling busy is bad [good]” and that “participants who were told that feeling busy is good [bad] performed much better on blood pressure, blood sugar, and cardiovascular tests.” The podcast concluded with the psychologist advising that “when you feel busy you should view it as a good [bad] thing” and to “remember that feeling busy is a good [bad] thing in your life.”

After listening to the podcast, participants in the “busy = good” [“busy = bad”] condition were asked to think about evidence from their personal lives that supported the podcast’s claim that feeling busy is beneficial [harmful]. To reinforce the manipulated beliefs about the valence of busyness, participants then briefly wrote about how feeling busy has benefited them (i.e., why it is good) [harmed them (i.e., why it is bad)]. Next, participants answered six manipulation check questions on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*): 1) “Feeling busy is good for me,” 2) “Feeling busy is a sign of something bad,” (reverse coded) 3) “Feeling busy is bad for me” (reverse coded), 4) “Feeling busy is a positive state of being,” 5) “When I feel busy, I should see it as a good thing,” and 6) “When I feel busy, I should see it as a bad thing” (reverse coded). We averaged the six manipulation check items to create a “busy = good” manipulation check index ( $\alpha = .92$ ).

In a purportedly unrelated second survey, participants responded to several questions about their current feelings. Specifically, we measured their current sense of empowerment with four items (Patrick & Hagtvedt, 2012): 1) “I feel in control of my life,” 2) “I feel empowered” 3) “I feel confident,” and 4) “I am in the driver’s seat of my life” (1 = *Not at all*, 7 = *Very much*). These items were averaged to create an empowerment index

( $\alpha = .92$ ). Participants also reported their perceptions of their general busyness (“How busy are you these days?”; 1 = *Not at all*, 7 = *Very*) and their current busyness (“How busy do you currently feel?”; 1 = *Not at all*, 7 = *Very*). Finally, we gathered demographic information and debriefed participants.

### *Results and Discussion*

*Manipulation checks.* A one-way ANOVA on the “busy = good” manipulation check index confirmed that participants in the “busy = good” condition ( $M = 5.58$ ,  $SD = 1.00$ ) more strongly agreed that feeling busy was a good thing than did those in the “busy = bad” condition ( $M = 3.99$ ,  $SD = 1.18$ ;  $F(1, 137) = 73.93$ ,  $p < .001$ ). This result confirms that the manipulation of participants’ lay beliefs about the valence of busyness was successful.

*Empowerment.* A one-way ANOVA with the empowerment index as the dependent variable showed that participants in the “busy = good” condition reported feeling more empowered ( $M = 5.22$ ,  $SD = 1.30$ ) than did participants in the “busy = bad” condition ( $M = 4.62$ ,  $SD = 1.61$ ;  $F(1, 137) = 5.91$ ,  $p = .02$ ). This finding supports our prediction that viewing busyness as a good (vs. bad) thing leads to a greater sense of empowerment.

*Feelings of busyness.* Two separate one-way ANOVAs were conducted on participants’ reports of how busy they felt (both in general and currently). The results revealed that participants in the “busy = good” and “busy = bad” conditions felt that they were equally busy these days ( $M_{\text{busy} = \text{good}} = 5.60$ ,  $SD = 1.10$  vs.  $M_{\text{busy} = \text{bad}} = 5.50$ ,  $SD = 1.38$ ;  $F(1, 136) = .21$ ,  $p = .65$ ) and they reported that they currently felt equally busy ( $M_{\text{busy} = \text{good}} = 5.67$ ,  $SD = 1.20$  vs.  $M_{\text{busy} = \text{bad}} = 5.36$ ,  $SD = 1.27$ ;  $F(1, 136) = 2.08$ ,  $p = .15$ ). As a

further test of the possible role of feelings of busyness, we also re-ran the previous analysis with participants' current and general feelings of busyness included as covariates. The results revealed that the main effect of lay theory condition (i.e., "busy = good" and "busy = bad") on empowerment remained significant ( $ps < .05$ ).

*Discussion.* This study served as a proof-of-principle study that tests whether holding the theory that "busy = good" (vs. "busy = bad") leads to greater feelings of empowerment. Study 1b manipulated the lay theories under investigation and the results offered evidence of the causal link in our theoretical framework: that beliefs about the valence of busyness influence feelings of empowerment. Specifically, study 1b revealed that participants in the "busy = good" (vs. "busy = bad") condition felt that they were currently more empowered. Study 1b also helped to rule out an alternative account. Namely, it was shown that neither feelings of general busyness nor feelings of current busyness could account for the observed effects, as these feelings did not significantly differ across experimental conditions. In the next study, we build upon these findings by investigating the downstream consequences of holding a "feeling busy = good" versus "feeling busy = bad" lay theory on volunteering.

### STUDY 3A

One objective of study 3a was to test our prediction that people's lay theory about the valence of busyness predicts their volunteering behavior, and that this effect is statistically explained via enhanced feelings of empowerment. Another objective was to demonstrate the effect of holding the lay belief that "feeling busy is good" (vs. "feeling

busy is bad) on volunteering using measures of actual behavior (i.e., whether participants volunteer to make first aid kits for families in need and whether participants sign up for a volunteering opportunity in their local community). Moreover, for convergent validity, this study used a different manipulation to shift participants' lay theories about the valence of feeling busy.

### *Participants and Procedure*

One hundred fifty-five undergraduate students (57.4% female;  $M_{\text{Age}} = 21.2$ ,  $SD_{\text{Age}} = 2.47$ ) at a large public university participated in exchange for extra course credit. This study used the same 2-cell design as did study 1b, in that beliefs about the valence of busyness were manipulated between-subjects to be either “busy = good” or “busy = bad.” Following guidelines established by prior research (Mukhopadhyay & Johar, 2005), six participants who reported complete disagreement with the manipulated lay theory were not included in the analyses.

After arriving at the experimental lab, participants were told that they would be taking several ostensibly unrelated surveys. In the first survey, participants were randomly assigned to either the “busy = good” or “busy = bad” condition. To manipulate participants' “busy = good” versus “busy = bad” beliefs, participants read a short article about busyness which had ostensibly appeared in a popular science magazine. Those in the “busy = good” condition read a version of the article titled “Feeling Busy: It's Good for You” that was designed to strengthen people's belief that feeling busy was a good thing, whereas those in the “busy = bad” condition read a version titled “Feeling Busy: It's Bad For You” that was designed to strengthen people's belief that feeling busy was a bad thing. In the article, participants in the “busy = good” [“busy = bad”] condition first read about an individual

named Sam who always feels busy and believes that “feeling busy is good [bad] for me and my family, and I would not change it for anything [would do anything to change it].” Participants then read several ostensibly real findings “from recent scientific research on busyness” (e.g., that people who feel busy “are less [more] likely to suffer from mental disorders like extreme anxiety and depression” and that “feeling busy is a positive [negative] sign and is associated with high levels of life satisfaction [dissatisfaction]”). The full manipulations are shown in Appendix B.

Similar to study 1b, after reading the magazine article, participants were asked to provide evidence from their personal lives that supported the findings described in the article. Participants then answered six manipulation check questions (1 = *Strongly disagree*, 7 = *Strongly agree*): 1) “Feeling busy is good for me,” 2) “Feeling busy is a sign of something bad” (reverse coded), 3) “Feeling busy is bad for me” (reverse coded), 4) “Feeling busy is a positive state of being,” 5) “When I feel busy, I should see it as a good thing,” and 6) “When I feel busy, I should see it as a bad thing” (reverse coded). We created a “busy = good” manipulation check index by averaging these six manipulation check items ( $\alpha = .95$ ).

In the second survey, we measured participants’ current sense of empowerment using the same four items as in study 1b. These items were later averaged to create an empowerment index ( $\alpha = .90$ ). Participants were then told that a service-oriented organization at the university had created several volunteering opportunities for students and that these opportunities would be taking place within the next several weeks. They were informed that the organization was currently recruiting volunteers and provided with a list of three real volunteering opportunities that they could sign up for: 1) an opportunity

to provide care and socialization to homeless pets at a local animal shelter, 2) an opportunity to tutor “at risk” children and supervise their various sport activities at a local elementary school, and 3) an opportunity to provide hot meals, showers, laundry services, and case management to the homeless population at a local shelter. A detailed description of each opportunity, including information about the date, time, location, and transportation for each event, was provided. Participants were then told that participation in these volunteering opportunities was optional and asked whether they would like to sign up for any of these opportunities. They were also told that if they answered in the affirmative, they would be taken to an online registration form on the following page (participants who indicated they wanted to volunteer were indeed subsequently taken to this registration form). Following the option to sign up for a service opportunity, participants reported which (if any) opportunities they had volunteered for and we collected their demographic information. Whether or not participants signed up for a service opportunity (0 = did not sign up to volunteer, 1 = signed up to volunteer) was used as our first behavioral measure of volunteering.

At this point, participants were led to believe that the study was completed. However, as an ostensibly unrelated request, participants were provided with another opportunity to volunteer their time. As a cover story, they were told that the college had partnered with the American Red Cross to donate first aid kits to needy families in crisis-afflicted areas. Participants were also told that the American Red Cross had specific requirements for what items and how many of each item must go into each donated first aid kit. It was further explained that the supplies required to make the kits had already been purchased using donations from university faculty and staff, but that volunteers were

needed to help assemble the kits. Participants were told that volunteering was optional and asked whether they were willing to stay and volunteer their time to make one or more first aid kits. Those who answered “yes” were provided with detailed kit assembly instructions and the necessary medical supplies (e.g., latex-free gloves, tweezers, thermometers, gauze sponges, sterile prep pads, anti-itch cream, burn cream, bandage rolls, antibiotic ointment, etc.); those who answered “no” were thanked for their participation and told they could leave. Whether or not participants made a first aid kit (0 = did not make a first aid kit, 1 = made a first aid kit) was used as our second behavioral measure of volunteering.

### *Results and Discussion*

*Manipulation checks.* A one-way ANOVA on the “busy = good” manipulation check index indicated that the manipulation was successful. Specifically, participants in the “busy = good” condition ( $M = 5.68$ ,  $SD = .88$ ) reported that they more strongly believed that feeling busy was a good (vs. bad) thing than did those in the “busy = bad” condition ( $M = 3.52$ ,  $SD = 1.44$ ;  $F(1, 147) = 123.82$ ,  $p < .001$ ).

*Empowerment.* A one-way ANOVA with the empowerment index as the dependent variable showed that there was a significant effect of experimental condition. Participants in the “busy = good” condition ( $M = 5.18$ ,  $SD = 1.30$ ) reported that they felt more empowered than did those in the “busy = bad” condition ( $M = 4.22$ ,  $SD = 1.54$ ;  $F(1, 147) = 16.93$ ,  $p < .001$ ).

*Volunteering.* We conducted a binary logistic regression with participants’ decision to sign up for a volunteering opportunity as the dependent variable and the experimental condition as the independent variable. The results showed that participants in the “busy = bad” condition (12.3%) were significantly less likely to sign up for a volunteering

opportunity than were participants in the “busy = good” condition (26.3%;  $\beta = -.93$ ,  $SE = .44$ ;  $Wald = 4.46$ ,  $Exp(B) = .39$ ,  $p = .04$ ). We also conducted a similar binary logistic regression analysis with participants’ volunteering of time to assemble first aid kits as the dependent variable and the experimental condition as the independent variable. The analysis revealed that participants in the “busy = bad” condition (21.9%) were significantly less likely to make a first aid kit than were participants in the “busy = good” condition (39.5%;  $\beta = -.84$ ,  $SE = .37$ ;  $Wald = 5.26$ ,  $Exp(B) = .43$ ,  $p = .02$ ).

*Mediation analyses.* We then conducted two mediation analyses to test our theory that feelings of empowerment (i.e., the empowerment index) mediated the effect of experimental condition (i.e., “busy = bad” = 0, “busy = good” = 1) on volunteering. The dependent variable in the first mediation analysis was whether participants volunteered to make first aid kits, and the dependent variable in the second analysis was whether participants signed up for a volunteering opportunity. Nonparametric bootstrapping procedures (10,000 resamples) calculated these indirect effects using PROCESS model 4 (Hayes, 2013). As predicted, the results revealed that, for both behavioral measures of volunteering, the indirect effect of empowerment was significant: Participants in the “busy = good” (vs. “busy = bad”) condition were more likely to volunteer because they currently felt more empowered ( $\beta = .37$ , 95%  $CI = [.09, .85]$  for the making of first aid kits;  $\beta = .31$ , 95%  $CI = [.05, .74]$  for the volunteering opportunity signups).

*Discussion.* Using two measures of actual volunteering behavior, study 3a showed that holding the lay belief that feeling busy is good (vs. bad) makes people more likely to volunteer their time to help others. Participants in the “busy = good” (vs. “busy = bad”) condition were both more likely to assemble first aid kits for needy families and more likely

to sign up for an upcoming opportunity to volunteer in the local community. Conceptually replicating the results of the prior studies, study 3a also demonstrated that participants in the “busy = good” (vs. “busy = bad”) condition felt more empowered. Moreover, in line with our conceptual model, mediation analyses revealed that the effect of “feeling busy = good” (vs. “feeling busy = bad”) lay beliefs on volunteering (for both volunteering measures) was driven by empowerment.

### *STUDY 3B*

Study 3b had two primary objectives. First, we designed this study to conceptually replicate the results of study 3a in a different population. Second, to test the specificity of our theory, study 3b also examined people’s willingness to donate money in addition to measuring their willingness to volunteer their time. Because our theory specifically relates the belief that “feeling busy = good” (vs. “feeling busy = bad”) to volunteering, we predicted that people’s lay beliefs about the valence of busyness would not affect monetary donations.

#### *Participants and Procedure*

One hundred twenty-seven Mechanical Turk panelists (55.6% female;  $M_{\text{Age}} = 34.2$ ,  $SD_{\text{Age}} = 12.07$ ) from across the United States participated in this study. The experiment used a 2-cell (Lay theory: “Busy = good” vs. “Busy = bad”) between-subjects design. Consistent with procedures used in prior research, eleven participants who reported complete disagreement with the manipulated lay theory were not included in the analyses (Mukhopadhyay & Johar, 2005).

As a cover story, participants were told that they would take two ostensibly unrelated surveys. In the first survey, participants were randomly assigned to either the “busy = good” or “busy = bad” condition using the same magazine article manipulation used in study 2a. Participants then answered the same six manipulation check items that were used in study 2a. We created a “busy = good” manipulation check index by averaging these six items ( $\alpha = .96$ ).

In the second survey, we measured participants’ current sense of empowerment using the same 4-item index used in study 1b ( $\alpha = .88$ ). We also assessed participants’ general willingness to volunteer their time and donate their money using two 3-item indices (which were counterbalanced in their order of presentation). One index ( $\alpha = .92$ ) measured their likelihood of volunteering time (1 = *Very unlikely*, 7 = *Very likely*): “How likely are you to volunteer to help a worthy cause or charity?”, “How likely are you to consider spending more time on charitable activities?”, and “How likely are you to volunteer to help a worthy cause or charity next week?” The other index ( $\alpha = .93$ ) measured their likelihood of donating money (1 = *Very unlikely*, 7 = *Very likely*): “How likely are you to donate money to help a worthy cause or charity?”, “How likely are you to consider spending more money on charitable activities?”, and “How likely are you to donate your money to help a worthy cause or charity next week?”

In addition to these indices, participants completed a 9-item scenario-based volunteering scale ( $\alpha = .90$ ) from Henderson, Huang, and Chang (2012). Sample items from this scale include “If you had the opportunity to volunteer at a hospital 3 hours a week for one month, how likely would you be to do it?”, “How likely would you be to volunteer your time to help at a senior citizens' home?”, and “If you saw an advertisement that was

soliciting volunteers for one weekend to help at a homeless shelter, how likely would you be to do it?” (1 = *Very unlikely*, 7 = *Very likely*). Last, we gathered participants’ demographic information.

### *Results and Discussion*

*Manipulation checks.* A one-way ANOVA on the “busy = good” manipulation check index indicated that the manipulation was successful. Specifically, participants in the “busy = good” condition ( $M = 5.72$ ,  $SD = 1.02$ ) reported that they more strongly believed that feeling busy was a good (vs. bad) thing than did those in the “busy = bad” condition ( $M = 3.11$ ,  $SD = 1.10$ ;  $F(1, 114) = 175.27$ ,  $p < .001$ ).

*Empowerment.* A one-way ANOVA on the empowerment index showed that there was a significant effect of experimental condition. Specifically, participants in the “busy = good” condition ( $M = 5.05$ ,  $SD = 1.44$ ) currently felt more empowered than did participants in the “busy = bad” condition ( $M = 4.22$ ,  $SD = 1.50$ ;  $F(1, 114) = 9.09$ ,  $p < .01$ ).

*Volunteering time and donating money.* A one-way ANOVA with the 3-item volunteering time index as the dependent variable confirmed that participants in the “busy = good” condition were more willing to volunteer their time ( $M = 3.99$ ;  $SD = 1.79$ ) than were participants in the “busy = bad” condition ( $M = 3.19$ ,  $SD = 1.94$ ;  $F(1, 114) = 5.37$ ,  $p = .02$ ). A one-way ANOVA on the 9-item scenario-based volunteering scale revealed a similar pattern of results: Participants in the “busy = good” condition ( $M = 3.52$ ,  $SD = 1.20$ ) expressed a greater likelihood of volunteering than did those in the “busy = bad” condition ( $M = 2.88$ ,  $SD = 1.43$ ;  $F(1, 113) = 6.71$ ,  $p = .01$ ).

Importantly, the valence of people’s lay beliefs about busyness had no impact on monetary donations. A repeated measures ANOVA with donation type (i.e., money vs.

time) as the within-subjects factor and busyness valence condition (i.e., “busy = good” vs. “busy = bad”) as the between-subjects factor did not yield a main effect of donation type ( $p = .43$ ), but it did reveal the predicted interaction between busyness valence condition and donation type ( $F(1,114) = 4.28, p = .04$ ). Pairwise comparisons revealed that although participants in the “busy = good” condition ( $M = 3.99, SD = 1.79$ ) were more likely to volunteer their time than were participants in the “busy = bad” condition ( $M = 3.19, SD = 1.94; F(1,114) = 5.37, p = .02$ ), participants in the “busy = good” ( $M = 3.57, SD = 1.80$ ) and “busy = bad” ( $M = 3.38, SD = 2.01$ ) conditions were equally willing to donate money ( $F(1,114) = .27, p = .61$ ).

*Mediation analyses.* To test our theory that feelings of empowerment (i.e., the empowerment index) mediated the effect of experimental condition (i.e., “busy = bad” = 0, “busy = good” = 1) on willingness to volunteer one’s time, we conducted two mediation analyses. The dependent variables for the first and second mediation analyses were the 3-item volunteering time index and the 9-item volunteering scenarios index, respectively. Nonparametric bootstrapping procedures (using 10,000 resamples) revealed that, for both volunteering indices, there was a significant indirect effect of empowerment: Participants in the “busy = good” (vs. “busy = bad”) condition were more willing to volunteer their time due to their enhanced sense of empowerment ( $\beta = .22, 95\% CI = [.03, .59]$  for the 3-item volunteering time index;  $\beta = .14, 95\% CI = [.01, .36]$  for 9-item volunteering scenarios index).

*Discussion.* The results of study 3b conceptually replicated those of study 3a by showing that holding the lay belief that “busy = good” (vs. “busy = bad”) results in a greater sense of empowerment and a greater willingness to volunteer time (as measured by both

volunteering indices). Also consistent with the results of study 3a, study 3b found that feelings of empowerment mediated the effect of “busy = good” (vs. “busy = bad”) beliefs on participants’ inclinations to volunteer. Importantly, and in support of the specificity of our theory, this study also demonstrated that holding the lay belief that “busy = good” (vs. “busy = bad”) does not affect monetary donations—only willingness to donate time.

#### *STUDY 4*

Study 4 had two primary objectives. First, we designed this study to provide further support for our proposed empowerment mechanism. Importantly, in this study we manipulated participants’ feelings of empowerment (empowerment vs. disempowerment vs. control) in addition to their lay theories about the feeling of busyness. If our theory that “busy = good” lay theories empower consumers is correct, then we would expect people in the “busy=good” condition to not be influenced by empowerment manipulation (because they have already been empowered by “busy=good” lay theory manipulation). In other words, we expect no difference in volunteering between “busy = good” and “busy = bad” condition when they are empowered. Second, to more deeply explore the nature of the lay beliefs we also included a disempowerment condition to test the extent to which believing that “busy = good” could serve as a buffer against feelings of disempowerment and to obtain evidence that believing “busy = bad” is disempowering. Namely, if people who believe that “busy = good” are faced with a potentially disempowering situation, will the empowerment they feel from believing “busy = good” serve to buffer them against these feelings of empowerment? If so, we would expect to again see a similar difference in

volunteering between the “busy = good” and “busy = bad” conditions as we did in the control condition. Moreover, if believing that busy = bad is indeed disempowering (as our theory predicts), then those who faced with a disempowering situation who believe that busy = bad should report similar volunteering patterns to those in the control condition who believe that busy = bad (as those who believe busy = bad should already feel disempowered—thus the added disempowerment manipulation should not make them feel significantly more disempowered).

### *Participants and Procedure*

Two hundred seventy-three Mechanical Turk panelists (50.2% female;  $M_{\text{Age}} = 39.1$ ,  $SD_{\text{Age}} = 12.1$ ) from across the United States participated in this study. This study used a 2 (Lay theory: “Busy = good” vs. “Busy = bad”) X 3 (Empowerment: High vs. control vs. low) between-subjects design. Following guidelines established by prior research (Mukhopadhyay & Johar, 2005), ten participants who reported complete disagreement with the lay theory manipulation were not included in the analyses.

As a cover story, participants were told they would be taking a series of ostensibly unrelated surveys. In the first survey, participants were randomly assigned to either the “busy = good” or “busy = bad” condition and their lay theory about the feeling of busyness was manipulated using the same magazine article task used in study 3a. Participants subsequently answered the same six manipulation check items that were used in study 2.

In the second survey, we manipulated participants’ current sense of empowerment (high vs. low vs. control) by asking them to recall and write about an episode in their lives in which they felt empowered (vs. disempowered). Participants in the control condition did not do anything. Participants subsequently answered six manipulation check questions on

a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*): 1) “I feel empowered,” 2) “I feel self-determined,” 3) “I feel incompetent” (reverse coded), 4) “I feel impactful,” 5) “I feel energized,” and 6) “I feel in control.”

Next, we measured participants’ willingness to volunteer their time using the same 9-item volunteering measure that was used in study 3b. Last, we gathered participants’ demographic information.

### *Results and Discussion*

*Manipulation checks.* A one-way ANOVA on the “busy = good” manipulation check index indicated that the manipulation of lay theories was successful. Specifically, participants in the “busy = good” condition reported that they more strongly believed that feeling busy was a good (vs. bad) thing ( $M = 5.79$ ,  $SD = .97$ ) than did those in the “busy = bad” condition ( $M = 3.00$ ,  $SD = 1.26$ ;  $F(1, 261) = 406.64$ ,  $p < .001$ ).

A one-way ANOVA on the empowerment manipulation check index indicated that manipulation of empowerment was successful ( $F(2, 260) = 82.01$ ,  $p < .01$ ). Specifically, participants in the empowerment condition felt significantly more empowered ( $M = 5.79$ ,  $SD = 1.10$ ) than those in the control condition ( $M = 5.15$ ,  $SD = 1.28$ ),  $t(260) = 3.11$ ,  $p < .01$ ), who significantly felt more empowered than those in the disempowered condition ( $M = 3.29$ ,  $SD = 1.52$ ),  $t(260) = 9.51$ ,  $p < .001$ ).

*Volunteering.* A 2 X 2 Factorial ANOVA with the experimental conditions as the independent variables and the volunteering intention index as the dependent variable was conducted. The results revealed a significant interaction of the “busy=good” vs. bad lay theories and empowerment ( $F(2, 257) = 4.43$ ,  $p = .01$ ), and a significant main effect of the lay theory condition ( $F(1, 257) = 18.65$ ,  $p < .001$ ). Particularly, participants in the “busy =

good” condition scored significantly higher intentions to volunteer their time ( $M = 4.16$ ,  $SD = 1.25$ ), than did participants in the “busy = bad” condition ( $M = 3.47$ ,  $SD = 1.27$ ;  $F(1, 261) = 20.09$ ,  $p < .001$ ).

Follow-up analyses revealed that among participants in the empowerment condition, those in the busy = bad condition were equally as likely to volunteer their time ( $M = 4.04$ ) as those in the busy = good condition ( $M = 4.04$ ;  $p = .97$ ). Among participants in the disempowered condition, those in the “busy = good” condition significantly reported higher willingness to volunteer ( $M = 4.12$ ), than did those in the “busy = bad” condition ( $M = 3.15$ ,  $p < .001$ ). We also replicated our findings in the previous studies in the control condition. Specifically, those in the “busy = good” condition were significantly more willing to volunteer their time ( $M = 4.32$ ), than were those in the “busy = bad” condition ( $3.31$ ,  $p < .001$ ). Figure 3 summarizes our findings in this study.

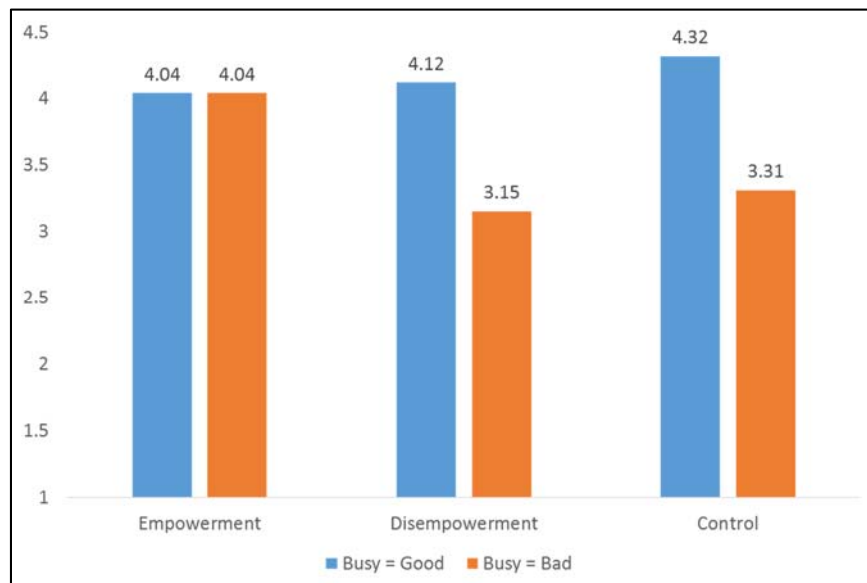


Figure 3: The effect of lay theories and empowerment on volunteering intentions.

### *Discussion.*

The results of this study provide further support for our theorizing that “busy = good” vs. “busy = bad” lay theories lead to greater feelings of empowerment and thereby enhance volunteering behavior. Particularly, study 4 manipulated both lay theories and empowerment to provide support for the mediating role of empowerment through moderation. For participants whose empowerment were not manipulated (i.e. control condition), we observed the same effects as previous studies. Namely, “busy = good” vs. bad lay theories resulted in greater volunteering. Enhancement of feelings of empowerment through manipulation didn’t influence volunteering intentions for those who were in the “busy = good” condition because they were already empowered but augmented volunteering intentions for those in the “busy = bad” condition. Finally, we explored whether “busy = good” manipulation could serve as a buffer against feelings of disempowerment by including a disempowering manipulation in the study. Our results indicate that for those whose lay theories were manipulated to be “busy = good,” the disempowerment manipulation did not influence their volunteering behavior and we observed the same results as we had in the control condition. Notably, those whose lay theories were manipulated to be bad were equally as likely to volunteer their time in both control and disempowerment conditions because “busy = bad” makes people disempowered and further disempowering participants through manipulation of empowerment did not influence their volunteering (due to floor effect).

## GENERAL DISCUSSION

*“It's not the load that breaks you down, it's the way you carry it.” — Lena Horne*

The present research aimed to elucidate the link between feeling busy and volunteering behavior through investigating how lay theories of busyness affect empowerment. Prior research provides equivocal evidence about the link. On the one hand, people often report that feeling busy is the main reason they do not volunteer or do not volunteer more (Vézina & Crompton, 2012). On the other hand, those who volunteer are not the least busy individuals in society. For instance, full-time and part-time workers volunteer more than the unemployed, and there is a positive relationship between volunteering and the number of hours spent at work among full-time workers (Independent Sector, 1992, 2003; Johnson et al., 2004). Our research offers a novel insight that contributes to resolution of this conflict by proposing that people's lay theories about feeling busy are an important driver of their volunteering.

Although feelings of busyness are ubiquitous in modern society, fairly little empirical research has sought to uncover its antecedents and consequences. However, across a series of eight studies, the present research predicted and found that people's lay beliefs about the valence of busyness (i.e. whether feeling busy is good or bad) can impact their sense of empowerment, and consequently, influence their volunteering behavior. The present research began by demonstrating that a substantial fraction of people believe that feeling busy is bad and a substantial fraction of people believe that feeling busy is good (studies 1a-1d). We then showed that a stronger belief that feeling busy is a bad (vs. good) thing is indeed negatively correlated with empowerment (study 1a). Building upon this

finding, the next objective was to show that changing people's lay beliefs about the valence of busyness could causally lead to a greater sense of empowerment. Our findings revealed that holding the lay theory that "busy = good" (vs. "busy = bad") makes people feel more empowered (study 2). Further, our research demonstrated that altering people's lay beliefs about the valence of busyness has important consequences for volunteering. Using measures of both actual volunteering and self-reported volunteering intentions, we showed that, by increasing people's sense of empowerment, viewing busyness through a positive (vs. negative) lens increased their willingness to volunteer (study 3a and 3b). Feelings of empowerment was also shown to be a mediator of this effect through manipulating the mediator (study 4).

#### *Theoretical Contributions and Practical Implications*

The current research makes numerous theoretical contributions. First, our findings have important implications for the volunteering literature. Volunteering has been defined as any activity in which a person freely gives their time to benefit another person, group, or cause (Wilson, 2000). But even though, by definition, volunteering is designed to directly benefit the well-being of others, volunteer work has been associated with higher levels of life satisfaction, greater happiness, higher self-esteem, and fewer symptoms of depression (Hong & Morrow-Howell, 2010; Thoits & Hewitt, 2001; Van Willigen, 2000) and those who invest more hours of volunteering report greater psychological well-being (Morrow-Howell et al., 2003). Volunteering can also have physical benefits. For instance, volunteers subsequently score higher on measures of functional ability (Moen, Dempster-McClain, & Williams, 1992), enjoy better physical health in old age (Stephan, 1991), and have a reduced risk of mortality (Musick, Herzog, & House, 1999; Oman, Thoresen, &

McMahon, 1999; Sabin, 1993). In short, volunteering is not only beneficial for the helped, but for the helpers as well.

Volunteering is also critical for many firms. Indeed, the vast majority of non-profits rely solely on volunteers (IRS, 2013, 2016) and for-profit firms are increasingly instituting employee volunteering programs or supporting employee volunteering in some fashion (Boccalandro, 2009; Committee Encouraging Corporate Philanthropy, 2011). In addition to the high economic value that volunteering can bring to a firm (Corporation for National and Community Service, 2015; Independent Sector, 2016), successful employee volunteering programs can enhance a firm's perceived corporate social responsibility (Hewlett, 2009) and positively influence consumers' decisions of where to work or shop, what to buy, and what products and services to recommend (Cone, 2010; Deloitte, 2007). Volunteering can also improve a firm's human resources metrics. For example, employee volunteering leads to greater job performance and job meaningfulness (Rodell, 2013), reduced employee turnover (Jones, 2010), and increased work effort and interpersonal cooperation via greater organizational identification (Bartel, 2001).

But despite the positive outcomes and value of volunteering for consumers and firms, the vast majority of American adults do not volunteer (Bureau of Labor Statistics, 2016), the volunteering rate is on the decline (Bureau of Labor Statistics, 2007, 2011, 2016), and many organizations are finding it difficult to recruit volunteers (Boughton, 2015; Lopez, 2015; Osborne, 2014; Owens, 2010; Stiner, 2013). Thus, an important question is: How can we encourage people to volunteer or volunteer more? Our research sought to address this question by focusing on one factor commonly thought to influence volunteering: people's busyness. However, rather than try to alter people's actual busyness,

we instead took a psychological approach, demonstrating that merely shifting people's lay beliefs about busyness (i.e., whether the feeling of busyness is seen as good or bad) can serve as a novel volunteering intervention. In addition, our work reveals new links between empowerment and volunteering behavior and provides a theoretical lens into what might motivate increased volunteerism (Zimmerman & Rappaport, 1988).

Second, our work provides a new perspective on busyness research. A striking feature of modern society is that people often seem to actively impose upon themselves a lifestyle of busyness and treat their busyness as a badge of honor (Gershuny, 2005; Kreider, 2012). This trend is in line with the finding that, although the number of hours that people work has remained the same and the amount of free time has in some cases even increased over the past several decades (Aguiar & Hurst, 2007; Robinson & Godbey, 1997), people from all walks of life have reported feeling increasingly busy (Dunn & Norton, 2013; Gershuny, 2005; Szollos, 2009). Taken together, this extant research suggests that altering actual workloads may not adequately alleviate the busyness trap that many people experience. Thus, rather than aiming to address the busyness epidemic by eliminating the feeling of busyness, our research sought to theoretically contribute to extant busyness research by showing that simply shifting the lens through which people view busyness can significantly attenuate some of its negative consequences. In particular, this research generated the novel insight that altering people's beliefs about the valence of busyness, such that feeling busy is seen as a positive (vs. negative), can serve as a remedy to the lack of empowerment and time scarcity that may ordinarily accompany busyness. Moreover, whereas prior research suggests both positive and negative relationships between volunteering and busyness (Corporation for National and Community Service, 2007;

Independent Sector, 1992, 2003; Johnson, 2004; Points of Light Foundation, 2000; Robinson & Godbey, 1997; Strober & Weinberg, 1980; Sundeen et al., 2007), the present research addresses the conflict by suggesting that the way people view busyness plays an important role in how they spend their temporal resources: Namely, whether or not they elect to spend their time volunteering.

Third, our findings contribute to the literature of lay theories by investigating lay theories in a new domain—busyness—and the consequences of holding these lay theories. Prior research has explored lay theories in other domains such as obesity, experience of failure, and self-regulation to name a few (Mukhopadhyay & Johar, 2005; Dweck, 1999; McFerran & Mukhopadhyay, 2013). Although there is ample evidence that busyness is a subjective experience (Robinson & Godbey, 1997), prior research has not examined how people's lay theories about feeling busy might influence their perceptions and behaviors. The current research is thus an initial step towards understanding lay theories that people hold about busyness.

This research also generates valuable practical implications. First, it benefits consumers who are looking for ways to reduce the negative consequences of time famine and reap the mental and physical benefits of volunteering. Specifically, it suggests that perceiving busyness as positive leads to a greater sense of empowerment, and makes people more likely to volunteer. Second, it benefits managers who seek to assign tasks to employees in a way that will decrease their time scarcity in the workplace. For example, managers can emphasize the positive aspects of busyness (or the impermanence of busyness) during times that workloads are particularly high. This should lead to greater job satisfaction among employees (Burke et al., 2009). Last, the present research has important

implications for non-profit marketers in that the findings can assist them in recruiting volunteers. It is reasonable to expect that, based on our findings, marketing messages that frame busyness as a good thing or are communicated during a “good busy” time will be more effective at recruiting volunteers.

### *Limitations and Future Directions*

Although our findings are based on both self-reported volunteering intentions and actual volunteering behavior and our data were collected from multiple participant populations (i.e., both university students and Mechanical Turk workers across America), the extent to which our theory is applicable to the general population is uncertain. Thus, future research could address this issue by examining the predicted relationship between volunteering and lay theories of busyness using other participant populations (e.g., employees at a firm and the unemployed). Another potential limitation of our research is that our findings cannot definitely say whether it is the lay theory that “busy = good” that is empowering or whether it is the lay theory that “busy = bad” that is disempowering (or whether both are true). This is because, from a practical standpoint, there is no natural “control” or “baseline” lay theory to which these two oppositely-valenced lay theories about feeling busy can be compared. Indeed, initial pretesting revealed that people do not hold a “neutral” or “un-valenced” lay theory about the feeling of busyness. Our hypotheses, and consequently our results, are thus reflective of relative differences between holding differently-valenced lay theories about the feeling of busyness. However, future research could extend our findings by investigating what demographics, personality traits, and situational factors are more likely to be associated with the lay belief that feeling busy is good (vs. bad).

In the present research, it was shown that holding the lay theory that “busy = bad” (vs. “busy = good”) can influence people’s sense of empowerment. But what other consequences could these lay beliefs have? And is it possible that believing that busyness is bad (vs. good) can sometimes be more beneficial? In other words, future research should focus on not only identifying other possible consequences of holding lay beliefs about the valence of busyness, but also on whether and when one of these theories is more advantageous or beneficial than the other. Another consideration is that the present research looked at short-term consequences of holding the lay theory that busyness is bad (vs. good). But is it possible that holding these theories also leads to considerable changes in the way people think, feel, and behave in the long run? This lack of clarity about whether one theory is more beneficial than the other in the long-term suggests that another avenue for future work is to conduct longitudinal studies and examine how these theories affect consumer behavior over longer periods of time.

Finally, although the present research was able to successfully manipulate beliefs that busyness is positive (vs. negative) it is not clear how long such shifts in beliefs will last. A few minutes or hours? A day? A week? Thus, future research could also investigate how long an intervention designed to shift lay beliefs about busyness will be effective and what the optimal frequency of such interventions would be.

## CHAPTER 4

### **ESSAY 2:**

### **THE BALANCE OF MEANINGFULNESS VERSUS STRESS SHAPES LAY THEORIES OF THE VALENCE OF BUSYNESS**

*“For a salesman, there is no rock bottom to the life. He don’t put a bolt to a nut, he don’t tell you the law or give you medicine. He’s a man way out there in the blue, riding on a smile and a shoeshine. And when they start not smiling back – that’s an earthquake. Nobody dast blame this man. A salesman is got to dream, boy. It comes with the territory.”* – Arthur Miller in “Death of a Salesman.”

In the play “Death of a Salesman,” Arthur Miller portrays Willy Loman, a struggling travelling salesman whose career and life is replete with stress and uncertainty about the future. Stuck in the past with no glimmer of hope for the foreseeable future, he sees little meaning in his life and ends up committing suicide. The desire to seek meaning amid stressful situations is an important human motivation and critical for healthy human functioning (Frankl, 1963; MacKenzie & Baumeister, 2014). Extensive research on stressful life events suggests that individuals who construct meaning and make sense of stressful life events have better coping abilities (Park, 2010), health, and overall well-being (Baumeister, 1991). In his influential work, Viktor Frankl documents the dire conditions of inmates in Nazi concentration camps and suggests that those who had a purpose in their lives experienced greater longevity (Frankl, 1963). Meaningfulness also plays an important role in the day-to-day lives of consumers. Past research on more mundane daily stressors suggests that a sense of meaning helps buffer against stress and mitigates its negative consequences (Park & Baumeister, 2017).

While stress has detrimental effects for individual well-being, it is necessary for human functioning particularly when people think beyond the present and themselves (Baumeister et al., 2013). There is extensive research on the interplay between

meaningfulness and stress and its effect on mental health and stress resiliency (for a review see Park (2010) and Park (2013)). However, so far no research has explored how daily meaningfulness and stress influence the beliefs people hold and affect the feelings they experience and the behaviors they engage in. Drawing on the affect-as-information and emotional attention literatures, we posit that daily affective experiences of meaningfulness and stress can inform or shape the lay theories that individuals hold, which in turn influence their feelings and behaviors. Specifically, in this paper we uncover how the balance of meaningfulness and stress in individuals' daily lives influences their lay theories about the valence of busyness. This is critical given the current busyness epidemic in society (Wajcman, 2014) and the growing research on the consequences of busyness for consumer behavior (Bellezza et al., 2017, Wilcox et al., 2016). More importantly, in the previous chapter we showed that individual's lay theories about the valence of busyness influences their feelings of empowerment and volunteering. Therefore, investigating the antecedents of these lay theories has important implications for consumer well-being, volunteerism, and non-profit marketing.

What characterizes the feeling of busyness? In other words, how do people feel when they feel busy? To gain insights about this question, we conducted a pilot study. We asked seventy-six Mechanical Turk workers to reflect either on why they believe feeling busy is good or why they believe feeling busy is bad. Our findings suggest that participants who were asked to reflect on "feeling busy is good" belief associated feeling busy with words such as accomplishment, productivity, and purpose. On the other hand, those who reflected on "feeling busy is bad" belief associated feeling busy with words such as stress and lack of time to relax. Table 1 shows several examples and the frequency of some of

the words and phrases participants used to reflect on lay theories of the valence of busyness. The findings of this pilot study provide preliminary evidence about the link between meaningfulness, stress, and lay theories about the valence of busyness.

In this chapter, we provide theoretical and empirical support for the link between experience of meaningfulness and stress in one's life, and one's lay theory about the valence of busyness. We suggest that the degree to which one's activities are meaningful and stressful shapes one's beliefs about the valence of busyness. Particularly, individuals who spend most of their time on activities low on stress and high on meaningfulness are more likely to hold the lay theory that feeling busy is good. In contrast, individuals who spend most of their time on activities high on stress and low on meaningfulness are more likely to hold the lay theory that feeling busy is bad. In other words, we propose that one's lay theory about the valence of busyness is shaped by one's experience of meaningfulness and stress in daily life. Further, we argue that emotional attention moderates the extent to which the balance of meaningfulness and stress can shape a consumer's lay theories of busyness valence. Particularly, since high emotional attention implies that individuals are in-tune with the meaningfulness and stress in their lives, we expect the individuals high in emotional attention to hold less malleable lay theories about the valence of busyness. In contrast, making the meaningfulness versus stress salient for individuals low in emotional attention is more likely to shape their lay theory of the valence of busyness because their lay theories are more malleable.

Table 1: Examples of participants' reflections on lay theories of busyness

<b>Evidence of Meaningfulness and Stress</b>	<b>Frequency</b>	<b>Open-ended Example</b>
Stress	20	When I'm busy, I'm not able to relax; which causes stress. This stress could probably lead to high blood pressure and other health problems that could cause me problems.
Productivity	14	Keeping busy helps me feel more productive which makes me feel good and in turn increases my productivity further. I have found that when I am very busy with work, I like to do other things about the house such as chores because I kind of group it in with work for the day. Then I look back on everything I accomplished that day later and feel really good about being busy. This makes me happy and gives meaning to my life on days when otherwise I could have just sat around and been lazy.

Continued

Accomplishment	6	<p>Busyness benefits me because it makes me more productive. I get more things done instead of putting them off. As a result, I am more self-confident because I have accomplished more. It increase self-esteem and self-discipline. And it enables me to help others more and better, once I get things done that I need to do. It also helps me enjoy my leisure time more, along with my family, as they are more valuable to me.</p>
Meaning	3	<p>When I am busy, it makes me feel good about myself and makes me feel that I am accomplishing things with my life. Even small things like doing chores or other household tasks makes me feel that at the end of the day I made positive strides with progressing my life forward in a meaningful way. Obviously when I feel accomplished I feel good about myself; and a high self-esteem is beneficial for anyone!</p>

Continued

Purpose	2	Busyness benefits me in many different ways — it stops me from being too lazy, it keeps me extremely active, and keeps my mind sharp. Being continuously busy also makes me feel a great sense of purpose. I love being busy. I couldn't live without busyness.
Not relaxed	12	I find that I don't have enough time for myself. For example I can't relax and devote my full attention to a movie. I feel like I have to be getting something else done at the same time. I could feel a lot better about the things I have to do if I had just a little more time for the things that I want to do.
Engagement with important things	6	Busy-ness is negative in that it takes away from everything else that is important. Too much stress and worry and/or dissatisfaction can be detrimental to your health and create an atmosphere of neglect and distraction. Placing priorities and importance on important activities and/or commitments is beneficial to everyone.

The remainder of this chapter is as follows. First, we provide theoretical support for our predictions. Then we present five studies that test and provide empirical support for our theory. Finally, we discuss implications of our findings and avenues for future research.

## *CONCEPTUAL FRAMEWORK*

### *Stress and Meaningfulness*

For thousands of years philosophers have been seeking to answer the question of what makes some people resilient to stress, but not others (Glazer, Kozusznik, Meyers, & Ganai, 2014). Many answers have been proposed from social support (King et al., 1998) to personal hardiness (Bonanno, 2004) to positive emotions (Ong et al., 2006). In fact, Viktor Frankl suggests that “he who has a why to live for can bear almost any how” (Frankl, 1963; p. 84). Frankl’s central thesis was that those who survived Nazi concentration camps believed that they had a unique purpose and meaning in their life that they needed to fulfill.

Meaningfulness is “the possession of a coherent framework for viewing life that provides a sense of purpose or direction, which, if lived with in accord, can bring about a sense of fulfillment” (Mascaro & Rosen, 2008; p. 578). Meaningfulness has been shown to be an important resource to mitigate deleterious effects of life stressors (Mascaro & Rosen, 2008; Pines, 2004; see Park (2010) for a review). Recently, Park and Baumeister (2017) extended these findings to daily stressors and demonstrated that a meaningful life mitigates the negative consequences of daily stressors. A more meaningful life enhances perceptions of predictability and coherence of the world, which is associated with a greater sense of personal control (Heine et al., 2006; Heintzelman et al., 2013). Since

uncontrollability gives rise to stress, meaningfulness can buffer daily stressors by enhancing coherence and predictability in daily life (Park & Baumeister, 2017). Notably meaningfulness does encompass a number of previously identified factors that contribute to resilience to stress. For example, past research has found that meaningfulness is linked to hardiness (Maddi, 2013) and positive affect (Harrison, 2008), both of which are linked to reduced stress.

### *The Affective Origins of Lay theories of Busyness*

How can the experience of meaningfulness and stress influence one's lay theories about the valence of busyness? The lay theories literature has largely focused on the consequences rather than origins of lay theories (Molden & Dweck, 2006). However, there is evidence that lay theories may be shaped by individuals' life experiences. For example, Mueller and Dweck (1998) found that children who grew up being praised for their intelligence (vs. effort) were more likely to believe that intelligence is fixed (vs. could be cultivated). Consistent with this finding, classical conditioning theory also suggests that consumers' attitudes can be formed through a learning process (Staats & Staats, 1958; Cacioppo, Marshall-Goodell, Tassinary, & Petty, 1992; De Houwer, Baeyens, & Eelen, 1994). In particular, evaluative conditioning suggests that people form valence-laden attitudes about a neutral object when it is associated with another subjectively liked or disliked object (Walther, 2002).

Related literature on the influence of affective states on judgments also provides support for our theory. Numerous studies have found that affective states influence how people think about their daily experiences (Forgas, 1982; Nussbaum, 2003; Pham, 2009). In particular, research has found that affect influences the content and valence of beliefs (Forgas, 2013). Two complementary accounts explain how affective states influence the

valence of beliefs: memory-based affective infusion and affect-as-information. The memory-based account suggests that affective states selectively prime thoughts and ideas congruent with the valence and content of the affect (Bower, 1981; Forgas, 1995). Affective states have been shown to infuse beliefs about self, others and relationships (Forgas, 2000). Relatedly, the affect-as-information framework suggests that people rely on their affective states to draw inferences about objects (Schwarz & Clore, 1996). In particular, people rely on a “*How do I feel about it*” heuristic to make mood-congruent judgments about a target object (Mayer, Gaschke, Braverman, & Evans, 1992). The feelings used to make evaluative judgments are produced either integrally (e.g. by evaluating the target) or incidentally (e.g. externally induced; Pham, Cohen, Pracejus, & Hughes, 2001). Reliance on feelings as a driver of judgments and beliefs increases when the feelings are perceived as representative and reflect the characteristics of the target (Pham, 2009; Strack, 1992). In addition to valence, research has shown that people also use the *intensity* of their feelings as a heuristic when making inferences (Pham, 2009; Gorn, Pham, & Sin, 2001). Germane to our theorizing, is the finding that reliance on feelings in making judgments or decisions tends to increase when people experience time pressure – i.e. when they are busy (Pham et al., 2001; Siemer & Reisenzein, 1998). Together these findings suggest that an individual’s beliefs about the valence of a phenomenon, such as busyness, are, at least partially, formed by the feelings produced by the phenomenon.

Relying on an affect monitoring framework (Pham et al., 2001), we propose that individuals who experience greater meaningfulness and lower stress in their lives are more likely to associate feeling busy with more positive concepts. In contrast, those who experience greater stress and lower meaningfulness associate feeling busy with more

negative concepts. Consequently, we predict that one's experience of stress and meaningfulness in life would predict one's attitudes about the valence of busyness. We propose the following hypothesis:

*H1: Being busy with activities high (low) on meaningfulness and low (high) stress would influence individuals' lay theories about feeling busy to be "busy = good" ("busy = bad").*

#### *The Moderating Role of Emotional Attention*

Emotional attention is defined as a tendency to reflect on and recognize internal emotional states. People high on emotional attention think about (and trust; Avnet et al., 2012) their feelings (e.g. meaningfulness and stress) frequently and their feelings are highly accessible to them. Since individuals form valence-laden beliefs about an object based on how they feel about it (Pham, 2009; Schwarz & Clore, 2007), individuals high on emotional attention are more likely to form valence-laden beliefs about a target object when the object produces negative or positive feelings. Evidence from affect-as-information literature suggests that greater emotional attention increases influences of affective states on judgments (Gohm & Clore, 2000; 2002). Gasper and Clore (2000) investigated how individuals high (vs. low) in attention to emotion (a subscale of Trait-Meta-Model Scale that measures being aware of and valuing emotional cues; Salovey, Mayer, Goldman, Turvey & Palfai, 1995) relied on their negative (vs. positive) moods to make risk estimations. Negative mood pronounced risk estimations for participants high, but not low, in attention to emotion. Other researchers found that feelings are more diagnostics of

individuals' judgments when they are instructed to pay attention their feelings, which presumably makes the feelings more accessible to them (Siemer & Reisenzein, 1998; White & McFarland, 2009). In a similar vein, the extent to which individuals trust their emotions have been shown to influence reliance on their emotions. Avnet et al. (2012) manipulated trust in feelings and found that higher trust in feelings enhanced reliance on affect in making judgments.

So far we have predicted that one's lay theories about the valence of busyness is formed by the extent to which they feel meaningful and stressed out in their life experiences. If our theory is true, then individuals high on emotional attention should hold stronger, i.e. less malleable, beliefs about the valence of busyness. This is because feelings of meaningfulness and stress are more accessible to people high on emotional attention and consequently they form stronger beliefs about lay theories of busyness valence. In contrast, we predict that individuals low on emotional attention would have malleable lay theories about the valence of busyness. We propose the following hypothesis:

*H2: Individuals high (low) in emotional attention hold lay theories of the valence of busyness that are less (more) malleable to the salience of current feelings of meaningfulness versus stress in daily life. In other words, the salience of meaningfulness or stress has a greater impact in shaping the lay theories of the valence of busyness for individuals low in emotional attention versus those who are high in emotional attention.*

## OVERVIEW OF STUDIES

In five studies we provide empirical support for our predictions. Study 1a and 1b use two different manipulations to test our central prediction that the balance of meaningfulness and stress shapes the lay theory that feeling busy is good (vs. busy is bad). Study 2a and 2b test the moderating effect of emotional attention. Study 2a shows that making meaningfulness versus stress salient shapes the lay theories held by participants low, but not high, on emotional attention. Those high on emotional attention, hold stronger lay theories that are less malleable. Study 2b provides additional (correlational) evidence to demonstrate that emotional attention is positively associated with how strongly participants believe in either of the lay theories about the valence of busyness. Study 3 uses secondary data from the American Time Use Survey to show that the balance of meaningfulness and stress predicts volunteering, thus linking the current essay to the findings of essay 1.

### STUDY 1A

The objective of this study was to provide initial support for the prediction that being busy with activities high (low) on meaningfulness and low (high) on stress informs individuals' lay beliefs that feeling busy is good (bad).

#### *Participants and Procedure*

One hundred forty-six Mechanical Turk panelists (60.3% female; Mean age = 35.7; SD = 13.3) from across the United States participated in this 2-cell between-subjects study. Participants were randomly assigned to one of the two experimental conditions. In the first

condition, participants were asked to imagine a day in their lives filled with activities that were meaningful and not stressful. They were asked to list and describe some of the activities that they would do in such a day. Participants in the second condition were given the same instructions except that they were asked to list activities low on meaningfulness and high on stress.

Following the manipulation, we measured their attitudes about feeling busy with those activities using three sub-scales: the first two measures referred to the activities they listed and the third measure assessed their general attitude about feeling busy. In the first measure, participants responded to two questions on a 7-point scale (1 = Not at all, 7 = Very much): 1) “To what extent do you think that being busy with the activities mentioned above would feel good?” 2) “To what extent do you think that being busy with the activities mentioned above would feel bad?” (reverse coded). The two items were averaged to create a “busy = good” scale ( $r = .71$ ). In the second scale, participants responded to three items on a 7-point scale (1 = Strongly disagree, 7 = Strongly agree): 1) “Being busy with these activities would feel good,” 2) “I like the feeling of busyness associated with these activities,” and 3) “These activities would make my day busy in a bad way” (reverse coded). The three items were averaged to create the second “busy=good” scale ( $\alpha = .89$ ). In the third measure, we asked participants to report their attitudes about feeling busy on the same scale: 1) “Feeling busy is good for me” 2) “Feeling busy is a sign of something bad” (reverse coded) 3) “Feeling busy is bad for me” (reverse coded) 4) “Feeling busy is a positive state of being” 5) “When I feel busy, I should see it as a good thing” 6) “When I feel busy, I should see it as a bad thing” (reverse coded). The six items were averaged to create the third “busy = good” scale ( $\alpha = .92$ ). Participants then completed some

demographic variables and reported their general and current feelings of busyness and happiness.

### *Results and Discussion*

We conducted three one-way ANOVAs with the experimental condition as the independent variable and the three “busy = good” scales as dependent variables. Analyses revealed that participants in the high meaningfulness and low stress condition scored significantly higher on all three “busy = good” scales ( $M_1 = 6.41$ ,  $M_2 = 6.18$ ,  $M_3 = 5.67$ ) than did those in the low meaningfulness high stress condition. ( $M_1 = 3.43$ ,  $M_2 = 3.32$ ,  $M_3 = 4.98$ ;  $F_1(1, 144) = 236.39$ ,  $p_1 < .001$ ;  $F_2(1, 144) = 213.53$ ,  $p_2 < .001$ ;  $F_3(1, 144) = 13.11$ ,  $p_3 < .001$ ). The first two scales directly referred to the activities that participants listed. However, the third scale measured participants’ general attitudes about feeling busy and our experimental conditions predicted the variance in those attitudes. No age or gender effects were observed. The general and objective feelings of busyness were not different across conditions ( $ps > .75$ ). However, we did find significant effects on general and current feelings of happiness ( $p < .01$ ), but the study results are not changed controlling for current or general happiness. Taken together these results lend support to hypothesis 1. In the next study, we will manipulate the salience of daily stress and daily meaningfulness via a set of activities to rule out the possible role of demand bias in these results.

### *STUDY 1B*

The objective of this study was to replicate the effects of study 1A using a different manipulation. Since in our manipulation we explicitly mentioned stress and meaningfulness, it is possible that participants have been primed with positive or negative

theories about feeling busy. To rule out this possibility, in this study we used a different – activity-based – manipulation for meaningfulness and stress.

### *Participants and Procedure*

One hundred seventy Mechanical Turk panelists participated in this study (62.9% female; Mean age = 38.4; SD = 13.4). Similar to the study 1A, this study used a 2-cell between subjects design. Participants were randomly assigned to one of the two conditions. In both conditions participants were shown a to-do list of six activities and were asked to imagine having it for a busy day. They were asked to think about doing each activity and put themselves in the situation. The to-do list either included activities that were high on meaningfulness and low on stress or low on meaningfulness and high on stress. The list of activities was selected based on results from the American Time Use Survey well-being data. Participants in the American Time Use Survey reported their feelings of meaningfulness and stress during their activities on the day before they were interviewed (the details of this data are provided in Study 3). A pre-test with ninety-one participants revealed that the two lists were perceived as equally busy. Appendix C shows the full manipulations.

Following the manipulation, we measured their attitudes about feeling busy using the same three scales that were used in study 1a ( $r = .63$ ,  $\alpha = .91$ , and  $\alpha = .91$ , respectively). Next, we performed manipulation checks using two questions on a 7-point scale (1 = Not at all, 7 = Very much): 1) “How meaningful are these activities?” 2) “How stressful are these activities?” Finally, we measured participants’ demographics and current and general feelings of happiness and busyness.

## *Results and Discussion*

*Manipulation Checks.* Two one-way ANOVAs was conducted to check whether the manipulation was successful. Participants in the high meaningfulness low stress reported that activities were more meaningful ( $M = 5.63$ ) and less stressful ( $M = 2.81$ ) than did participants in the low meaningfulness and high stress condition ( $M_1 = 4.56$ ,  $M_2 = 3.63$ ;  $F_1(1, 168) = , p_1 < .001$ ;  $F_2(1, 168) = 12.3$ ,  $p_2 < .01$ ).

*“Busy = good” Scales.* We performed three one-way ANOVAs with the experimental condition as the independent variable and the three “busy = good” scales as the dependent variable. Participants in the high meaningfulness and low stress condition scored significantly higher in all three “Busy = good” scales ( $M_1 = 5.67$ ,  $M_2 = 5.59$ ,  $M_3 = 5.59$ ) than did participants in the low meaningfulness high stress condition ( $M_1 = 4.43$ ,  $M_2 = 4.33$ ,  $M_3 = 5.27$ ;  $F_1(1, 168) = 34.87$ ,  $p_1 < .001$ ;  $F_2(1, 168) = 30.79$ ,  $p_2 < .001$ ;  $F_3(1, 168) = 3.72$ ,  $p_3 = .056$ ). In other words, participants in the high meaningfulness and low stress more strongly supported the “busy=good” lay theory than did participants in the low meaningfulness high stress condition.

*Busyness and Happiness.* Four one-way ANOVAs was conducted with the experimental condition as the independent variable and current and general feelings of busyness and happiness as dependent variables. Results revealed no significant effect of experimental condition on the dependent variables.

*Discussion.* The findings of this study support hypothesis 1 that being busy in activities high (low) on meaningfulness and low (high) stress would feel good (bad) and influences individuals’ lay theories about feeling busy. The next two studies demonstrate the moderating role of emotional attention on how daily experiences of meaningfulness and stress shape the lay theories of the valence of busyness that consumers hold.

## STUDY 2A

This study is designed to illustrate that people who are high in emotional attention have strong – less malleable - lay theories about the valence of busyness (either good or bad). In contrast, those who are low on emotional attention, are more susceptible to the salience of either meaningfulness or stress in their lives making the lay theory they hold malleable. In study 2a, we manipulate the salience of meaningfulness and stress and show the moderating role of emotional attention on participants' lay theories about the valence of busyness. In study 2b, we replicate this finding to show that participants' emotional attention is positively correlated with the strength of their theory about busyness valence.

### *Participants and Procedure*

One hundred ninety-nine Mechanical Turk panelists participated in this study (62.8% female; Mean age = 35.8; SD = 12.5). The study used a 2-cell between subjects design. Before the manipulation, we measured participant's emotional attention using the six-item recognition subscale of Emotional Self-Awareness Scale (Kauer et al., 2012) on a scale of 0 (Never) to 4 (A lot). The items included 1) "It's hard for me to tell what mood I'm in" (reverse coded), 2) "I frequently take time to reflect on how I feel," 3) "I'm usually aware of my emotions," 4) "I like to go someplace alone to think about my feelings," 5) "I don't often think about my feelings" (reverse coded), 6) "I know exactly how I'm feeling" ( $\alpha = .60$ ). Next, participants were randomly assigned to one of the two conditions (meaningfulness vs. stress). They were asked to read an article that ostensibly appeared in a scientific journal. In the meaningfulness condition, the article was titled "What it means to live a meaningful life" and identified and described four categories of meaningful activities. In the stress condition, participants read a similar article about stress (the full

articles are shown in Appendix D). Next, they were asked to describe two or three highly meaningful (vs. stressful) activities they engaged in during the past week. They were also asked to explain how they felt about them.

Following the manipulations, participants were asked to respond to two manipulation check questions on a 7-point scale (1 = Strongly disagree, 7 = Strongly agree): 1) “The activities I just described are very meaningful to me,” and 2) “The activities I just described make me feel stressed out.” Then, we measured their lay theories about the valence of busyness using the same six items that was used in study 1a. Finally, we collected the demographic information.

### *Results and Discussion*

*Manipulation Checks.* Two one-way ANOVAs with the experimental condition as the independent variable and participants’ perceptions of meaningfulness and stress as the dependent variables were conducted. Participants in the meaningfulness condition perceived their activities as more meaningful ( $M = 5.95$ ) than did participants in the stress condition ( $M = 5.36$ ;  $F(1,197) = 14.42$ ,  $p < .001$ ). Similarly, participants in the stressful condition perceived the activities as more stressful ( $M = 5.58$ ) than did participants in the meaningfulness condition ( $M = 2.84$ ;  $F(1,197) = 202.38$ ,  $p < .001$ ). These findings confirm that the manipulations were successful.

*Emotional Attention.* A spotlight analysis with experimental condition as the independent variable (meaningfulness was coded as 1 and stress was coded as 2), the “busy=good” scale as the dependent variable, and emotional attention as the moderator was conducted. The analysis revealed no significant main effect of experimental condition on the “busy = good” scale ( $p = .72$ ). However, the effect was moderated by participants’ level

of emotional attention ( $p = .03$ ). The Johnson-Neyman procedure to identify regions of significance of the effect of meaningfulness (vs. stress) on lay theories of busyness (Spiller et al., 2013) revealed a significant effect of meaningfulness (vs. stress) on lay theories at and below  $-.74$  of the mean-centered emotional attention scale (5-point scale from 0 to 4;  $b = -.44$ ,  $SE = .23$ ,  $95\% \text{ CI} = [-.89, 0]$ ,  $p = .05$ ). There was no difference on “busy = good” scale between two conditions above the level of  $-.74$  on emotional attention scale (min  $p = .06$ ). The findings of this study suggest that the salience of meaningfulness and stress effectively changed the “busy = good” lay theories only for people low on emotional attention. In other words, since people who are high on emotional attention have developed strong theories about the valence of busyness, their theories are not malleable. This supports hypothesis 2.

To provide additional support for this finding, the next study investigates the relationship between emotional attention and how firmly people hold a belief about the valence of feeling busy.

### *STUDY 2B*

The objective of this study was to provide additional support for our findings in study 2a. Specifically, if the findings of study 2a are due to the malleability of the lay theories of busyness for people low on emotional attention, then emotional attention should be positively correlated with strength of belief in lay theories about the valence of busyness.

### *Participants and Procedure*

One hundred twenty-one Mechanical Turk panelists participated in this study (57.5% female; Mean age = 36.2; SD = 11.9). The study used a correlational design. Participants' emotional attention was measured using the same scale as in study 2a. They were then asked to indicate which lay theory they more strongly agreed with: "Feeling busy is good for me" or "Feeling busy is bad for me." Participants reported how strongly they believed in their choice on a scale of 1 (Not at all) to 7 (Extremely).

### *Results*

A correlational analysis with participants' emotional attention score and their strength of belief in the lay theory they chose revealed a significant positive correlation ( $r = .19, p = .03$ ). A regression analysis using emotional attention as the independent variable, and age and gender as covariates showed that emotional attention significantly predicted how strongly a participant held the lay theory about the valence of busyness ( $\beta = .217, p = .02$ ). As predicted, higher emotional attention was associated with stronger belief in the held lay theory. The findings of this study combined with study 2a confirm the hypothesis that people high on emotional attention hold less malleable theories about the valence of feeling busy and are less likely to be influenced by manipulations of meaningfulness and stress.

Taken together, the four studies reported thus far provide evidence for hypotheses 1 and 2. Using different manipulations that make meaningfulness and stress in daily life salient, we show that when individuals experience high (low) meaningfulness coupled with low (high) stress in their daily life they are more likely to hold a lay theory that "busy = good" ("busy = bad"). Further, emotional attention moderates this effect, such that

individuals who are high in emotional attention hold less malleable theories about the valence of busyness, while those low in emotional attention can have their lay theories shaped by the salience of either current meaningfulness versus current stress.

The study that follows links the findings of essay 1 to the current essay to show that the antecedents to the theories of busyness identified (i.e. meaningfulness versus stress) influence the downstream consequence of volunteering.

### *STUDY 3*

The objective of this study was to rely on secondary data to show that spending time on activities high (vs. low) on meaningfulness and low (vs. high) on stress leads to greater support for “busy = good” (vs. “busy = bad”) lay theory. In doing so, we show that spending more time on activities high on meaningfulness and low on stress is associated with greater volunteering behavior. In the next essay, we conduct multiple experiments to show that holding the lay theory that feeling busy is good is causally related to greater volunteering behavior. This study combines the findings from previous studies with the key result of essay 1 by showing that the activities consumers engage in – whether meaningful or stressful – predicts their volunteering behavior.

#### *Participants and Procedure*

*Description of the secondary data set.* The American Time Use Survey (ATUS) data from 159,937 respondents aged 15 and higher were pooled for the years 2003-2014 so as to explore the relationship between the valence of busyness and volunteering. The ATUS uses a day reconstruction method (Kahneman et al., 2004) to form diaries that record all the events that occurred during the day before the interview. For each event, the start

time, end time, and type of activity are recorded (among other measures). The interviews are done from January through December of each year using a representative sample of the United States population. Each participant was interviewed only once during this twelve-year period, so each entry in the data set represents the diary of a unique participant on a specific date between January 1<sup>st</sup> 2003 and December 31<sup>st</sup> 2014. In 2010, 2012, and 2013, a well-being module was also added to the interview. In the well-being module, after completing the diary for the preceding day, each respondent was asked to report (on a scale of 0 to 6) how happy, sad, meaningful, stressed, tired, and how much pain he/she felt during three of the activities they had engaged in during the previous day (the three activities that the participant was asked to evaluate were randomly selected from all the activities that the participant had reported in his/her diary, with the exception of grooming activities—such as sleeping, or bathing).

*Conceptualization of “busy = good” versus “busy = bad” lay theory.* Paraphrasing the great philosopher Aristotle, Durant (1924) wrote, “You are what you repeatedly do.” Based on this astute insight, and previous studies, we theorized that if people engage in more positive (vs. negative) activities, then they are more (vs. less) likely to hold the lay belief that “busy = good” and, according to essay 2, they are more likely to volunteer their time. Consequently, the objective of this study was to demonstrate that the type of activities that people engage (i.e., the extent to which they are busy with “good” activities vs. “bad” activities) can predict their volunteering behavior. To identify activities that should contribute to a “busy = good” perception versus a “busy = bad” perception, we suggest that the balance (i.e., relative difference) between the reported stressfulness of an activity and the reported meaningfulness of that same activity plays a key role. For instance, if an

individual performs activities that, on balance, are more stressful than meaningful, they should hold a lay theory that “busy = bad.” Thus, in the ATUS data set, we calculated a “busy=good” score for each activity using the reported meaningfulness and stress of that activity. In other words an activity rated low on stress but high on meaningfulness (such as playing a game) was characterized as a “busy = good” activity. In contrast, an activity rated high on stress and low on meaningfulness (such as commuting) was characterized as a “busy = bad” (i.e. low on “busy = good”) activity.

The ATUS dataset has 16 broad categories of activities (e.g. work and work-related activities, education, and telephone calls) that comprise a total of 431 individual daily activities (e.g. taking class for degree and research/homework for class fall under the category of education). To capture the perceived stressfulness and meaningfulness of a specific activity, we relied on the Well-being Supplement of the ATUS. In particular, we calculated the mean stress and mean meaningfulness of each activity based on the data reported by participants in 2010, 2012, and 2013. In those three years, in addition to collecting the diary data, interviewers also randomly selected three activities from each respondent’s diary (except grooming and sleeping activities) and measured how meaningful and stressful they felt during those three activities. Since the respondents were not asked to report their feelings of stress during sleeping and grooming activities, these activities were not included in our analyses. Further, some activities were reported so infrequently that there were no measures of their stress and meaningfulness in the data set. Those activities were also excluded from our subsequent analyses. The mean meaningfulness and mean stress of each category of activities used in our analyses is

presented in Appendix E. These means were used in subsequent analyses in the larger 12-year dataset to compute the “busy = good” scale.

*Computation of the busy = good scale.* The “busy = good” scale was computed by subtracting the “Average Stress per Minute” from the “Average Meaningfulness per Minute” for each individual ( $N = 159,937$ ) in the dataset across 12 years (2003-2014). The average stress per minute for each respondent was computed based on feelings of stress during all of the day’s activities (except volunteering activities). To do this, we used the mean stressfulness of each activity,  $\mu_s(A_i)$ , which was calculated based on the level of stressfulness reported by the subset of respondents who rated that activity in the Well-being Supplement of the ATUS (see Appendix E). Then, for each person, their average stress per minute during that day was calculated using the following formula:

$$\text{Average Stress per Minute} = \frac{\sum_{i=1}^n A_i * \mu_s(A_i)}{\sum_{i=1}^n A_i} \quad (1)$$

where  $A_i$  is the total minutes spent on the  $i^{\text{th}}$  activity reported by the person on the preceding day and  $\mu_s(A_i)$  is the mean of stressfulness of the  $i^{\text{th}}$  activity, which was calculated separately using the Well-being module (we added 1 to all measures of stress to change the scale from 0-6 to 1-7). As an example, assume that person A has driven to work for 30 minutes, worked for 300 minutes and cooked for 70 minutes during the preceding day. Also assume that the mean stressfulness for driving, working, and cooking are 4.2, 4.5, and 3.0, respectively. Then, “Average Stress per Minute” for this person would be calculated as  $(30 * 4.2 + 300 * 4.5 + 70 * 3.0) / (30 + 300 + 70) = 4.215$ . A similar procedure was followed to compute “Average Meaningfulness per Minute” for each individual in the

data set. We utilized the same basic formula for stress but replaced the means of stress with the reported means of meaningfulness in equation 1:

$$\text{Average Meaningfulness per Minute} = \frac{\sum_{i=1}^n A_i * \mu_m(A_i)}{\sum_{i=1}^n A_i} \quad (2)$$

where  $A_i$  is the total minutes spent on the  $i^{\text{th}}$  activity reported by the person on the preceding day and  $\mu_m(A_i)$  is the mean of meaningfulness of the  $i^{\text{th}}$  activity, which was calculated separately using the Well-being module (we added 1 to all measures of meaningfulness to change the scale from 0-6 to 1-7).

The list of activities,  $A_i$ , included in equations 1 and 2 are presented in Appendix E. Activities are presented in ascending order based on their “busy = good” value, which was calculated by subtracting the mean ratings stress of the activity from the mean ratings of meaningfulness of the activity. Thus, the activities close to the top of the table contribute to the “busy = bad” belief and activities near the end of the table contribute to the “busy = good” belief.

*Amount of time volunteered.* Since the duration of each activity, including volunteering activities, was recorded in the ATUS, we added up the minutes spent on each volunteering activity for each respondent to create a measure of total time volunteered on the preceding day ( $M = 9.61$  minutes,  $SD = 49.3$ ; Minimum = 0 minutes; Maximum = 1315 minutes). This measure served as our dependent variable in the subsequent analyses.

## Results

*“Busy = good” versus “busy = bad” lay theory:* Each respondent’s score on the “busy = good” (vs. “busy = bad”) scale was calculated by subtracting their average stress

per minute (equation 1) from their average meaningfulness per minute (equation 2). As an example, figure 4 shows the diary of one particular respondent in the dataset along with details of how his/her “busy=good” scale score was calculated. This person reported engaging in 11 activities, three of which were classified as part of the volunteering category and two of which were classified as sleeping and grooming activities. The remaining six activities were used to calculate this respondent’s average stress and average meaningfulness per minute. Then, their score on the “busy = good” scale was calculated by subtracting their average stress per minute from their average meaningfulness per minute.

*Volunteering.* On the day preceding their interviews, 11,454 respondents (who account for 7.16% of total the sample) volunteered between 1 and 1,315 minutes ( $M = 134.2$  minutes;  $SD = 131.1$ ). The volunteering category comprises 7 subcategories and 24 activities.

*Relationship between “busy = good” and volunteering.* The overarching goal of this study was to determine whether people who, on average, perform more activities that contribute to the lay theory that “busy = good” volunteer more than do people who perform more activities that contribute to the lay theory that “busy = bad.” To test this proposition, we conducted two sets of analyses. In the first set, we created a dummy variable that took the value of 1 if the person had volunteered during the preceding day and 0 if the person had not volunteered during the preceding day. Then we conducted a one-way ANOVA with the dummy volunteering variable as the independent variable and scores on the “busy = good” scale as the dependent variable. Four participants who did not report any activities that could be counted toward the calculation of the “busy = good” scale (e.g., they reported

only a combination of sleeping, grooming, and/or volunteering activities) were excluded from the analysis (in terms of volunteering, each reported 480, 990, 1,104, and 1,080 minutes of volunteering on the preceding day). The results of this analysis revealed that people who volunteered on the preceding day scored higher on the “busy = good” scale ( $M = 3.03$ ,  $SD = 0.41$ ) than did people who did not volunteer on the preceding day ( $M = 2.88$ ,  $SD = 0.40$ ;  $F(1, 159,931) = 1,431.75$ ,  $p < .001$ ).

In the second set of analyses, we screened out participants who did not volunteer on the preceding day and looked only at volunteers ( $N = 11,450$ ). We then conducted a regression analysis with the total minutes that these participants volunteered on the day preceding the interview as the dependent variable and their scores on the “busy = good” scale as the independent variable. The results of this regression revealed that among those who volunteered on the preceding day, scores on the “busy = good” scale were positively correlated with volunteering ( $r = .06$ ,  $p < .001$ ). Thus, in a large multi-year dataset of actual time use, we found support for the notion that when people are engaged in “busy = good” activities, they are more likely to volunteer their time to help others.

*Robustness check.* To ensure the robustness of this result, we replicated these results by extracting data from the 2013 survey. In this smaller dataset ( $N = 11,383$ ), scores on the “busy = good” scale were significantly higher for respondents who volunteered ( $M = 3.03$ ) than for respondents who did not volunteer ( $M = 2.88$ ;  $F(1, 11,381) = 93.45$ ,  $p < .001$ ). Moreover, among respondents who volunteered on the preceding day, the amount of time they volunteered was positively correlated with their score on the “busy = good” scale ( $r = .11$ ,  $p < .01$ ).

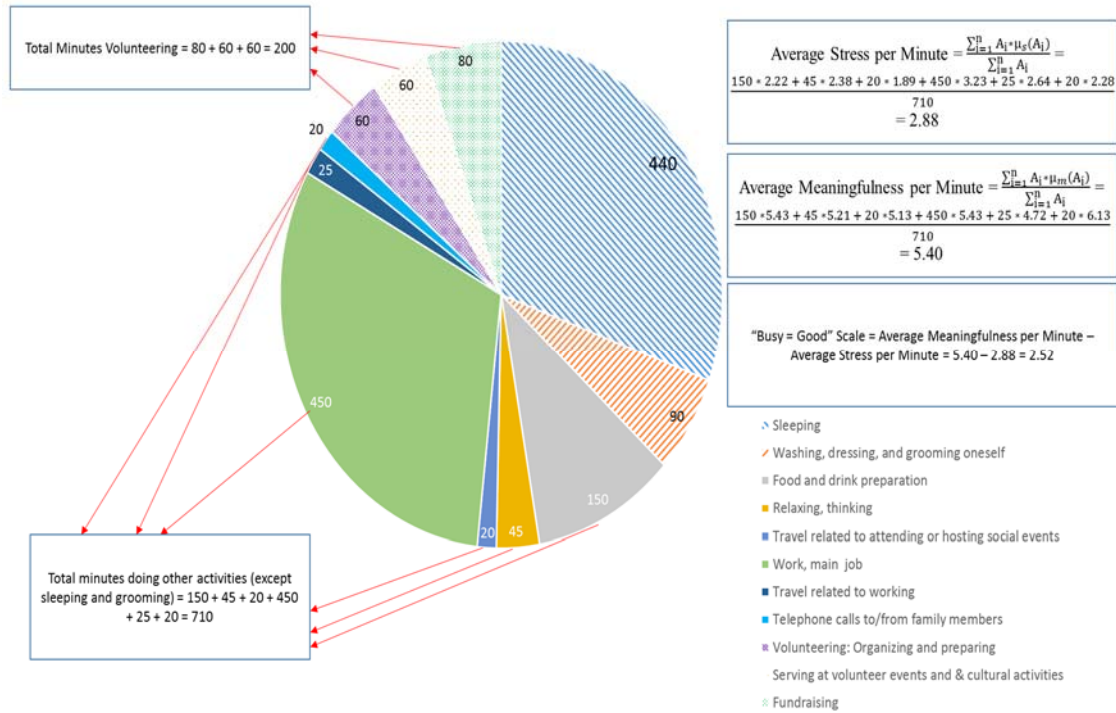


Figure 4: Calculating the “Busy = Good” Scale Score for a Single Respondent. Dotted areas represent volunteering activities, which served as our dependent variable and were not included in computing the “busy=good” scale. Lined areas represent sleeping/grooming activities, which were not included in any calculations. The “busy = good” scale was calculated based on the activities in solid areas.

## Discussion

In this study, we used secondary data to test our prediction that viewing busyness as a good thing leads to greater volunteering behavior. To do this, we conceptualized the “busy = good” belief as being engaged with activities that invoke feelings of meaningfulness, but that are also low in stress. We calculated a “busy = good” scale for each respondent based on the activities that they reported in their daily diary. Our analyses

found that people who volunteered scored higher on the “busy = good” scale than did people who did not volunteer. Further, we found that among who volunteered, the amount of time they volunteered was positively correlated with their “busy = good” score. Although a limitation of this study is that the means of stress and meaningfulness for some infrequent activities were calculated based on only one or a few observations, this limitation should not significantly change our results because those activities were so rare that it was unlikely that they would have significantly changed respondent’s scores on the “busy = good” scale.

### *GENERAL DISCUSSION*

*Your beliefs become your thoughts. Your thoughts become your words. Your words become your actions. Your actions become your habits. Your habits become your values. Your values become your destiny. -- Mahatma Gandhi*

This quote exemplifies the importance of understanding the factors that shape an individual’s lay beliefs, since the beliefs that individual’s hold shape their lives. In this research, we focus on how one specific lay belief is shaped: the lay theory about the valence of busyness. Essay 1 speaks to the impact that the lay theory has on consumer empowerment and volunteering behavior. The current essay delves into the factors that inform or shape the lay theory itself.

In five studies we provide support for our theory that the experience of meaningfulness and stress in an individual’s life informs the lay theories about the valence of busyness that he/she holds. Study 1a and 1b manipulated meaningfulness and stress

using two different methods and showed that spending time on activities high (low) on meaningfulness and low (high) on stress leads to greater support for the “busy = good” (vs. bad) lay theory. Study 2a used a different manipulation of meaningfulness and stress to test the moderating role of emotional attention. Findings of this study suggests that for participants high on emotional attention, lay theories about the valence of busyness are not malleable and consequently not affected by the salience of meaningfulness and stress. Study 2b provided more support for this finding by showing that the strength of belief in either lay theories is positively associated with emotional attention. Study 3 used the data from American Time Use Survey to show that the balance of meaningfulness and stress is associated with greater volunteering, thus linking the current essay to essay 1.

The present paper makes a number of important contributions. First, it contributes to the busyness literature by identifying the factors that shape individuals’ lay theories about the valence of busyness – namely meaningfulness and stress. In the first essay of this dissertation we theorized and found that lay theories of the valence of busyness play an important role in shaping consumers’ sense of empowerment and volunteering behavior. Given the important implications of those findings, the current research augments our understanding of how “busy = good” and “busy = bad” lay theories are formed. Second, this paper contributes to the meaning and stress literature by investigating their interplay in a new domain – i.e. lay theories. Past research has mainly focused on how meaningfulness mitigates the negative effects of stress (Park, 2010; Park & Baumeister, 2017). In this research, however, we focus on how the balance of meaningfulness and stress influences lay beliefs people hold about the valence of busyness. Early research on positive psychology made great effort in exploring happiness (e.g. Lyubomirsky, 2008). However,

recent research has called for learning about meaningfulness (Deci & Ryan, 2008; Baumeister et al., 2013). The current research responds to this call by investigating an important consequence of living a meaningful life. Third, this work extends the affect-as-information literature to a novel domain – lay theories. From a theoretical perspective, we show in this work that the reliance on feelings as information can impact the lay beliefs that individuals hold. Specifically, we shed light on how a person’s emotional life (e.g. experience of stress and meaning) and the extent to which feelings are relied upon (emotional attention) helps shape the lay theory of the valence of busyness that the individual holds. Last, this research contributes to the lay theory literature by investigating origins and malleability of lay theories (Molden & Dweck, 2006; Plaks et al., 2004). Past research on lay theories has found that lay theories can be situationally manipulated (e.g., Chiu, Hong, & Dweck, 1997; Plaks, Stroessner, Dweck, & Sherman, 2001). In addition, we identify a personality trait – emotional attention – that influences the malleability, and thus the manipulability, of lay theories.

Our research has also important implications for consumers and organizations. Recent research by Baumeister et al. (2013) suggests that meaningfulness is linked with greater stress. There is some support for this finding in the well-being data of the American Time Use Survey: People reported “work” as a highly meaningful and stressful activity. However, there are also activities that are meaningful but not stressful (e.g. socializing with family) or stressful but not meaningful (e.g. commuting during rush hours). Drawing on these insights, the current research suggests that engaging in more meaningful and less stressful activities leads to greater consumer well-being (through affecting their lay theories, empowerment, and volunteering). Consequently, our research recommends

engagement in activities that are high on meaningfulness and low on stress as a means to achieve greater well-being.

Our research suggests that individuals low on emotional attention have malleable lay theories about the valence of busyness. Consequently, those individuals should respond more positively to certain marketing messages. For example, a volunteering recruitment message that portrays busyness as a good thing should be more effective on individuals low on emotional attention.

Research on organizational psychology has found a link between meaningfulness and important organizational outcomes (Dik & Duffy, 2009). For example, meaningfulness predicts internal motivation, general work satisfaction, and satisfaction with developmental opportunities (Hackman & Oldham, 1976). Meaningfulness has also been listed among the top 10 factors that contribute to employee job satisfaction (Chalofsky & Krishna, 2009), and is associated with increased employee tenure, higher performance, and decreased job stress (Dik & Duffy, 2009; Flores, Miranda, Muñoz, & Sanhueza, 2012). Importantly, research has found that employees craft their jobs in order to make it more meaningful (Wrzesniewski & Dutton, 2001; Vuori, San, & Kira, 2012). A recent Gallup survey found that millennials, compared to previous generations, seek meaning in their jobs and want to work for organizations that give them a sense of purpose (Gallup, 2016). Our research speaks to the benefits of enhancing meaning at work through programs such as job crafting and employee development (Fairlie, 2011). Our findings suggest that a more meaningful job can also lead to greater employee empowerment and volunteering behavior by shifting employees' lay theories about the valence of busyness. Therefore, in order to increase

employee volunteering and feelings of empowerment, organizations should implement initiatives that facilitate making meaningful impact for their employees.

This research poses several avenues for future research. For instance, one promising avenue is to investigate other individual differences that could moderate the effect of meaningfulness and stress on lay theories of the valence of busyness. A prominent example is emotional clarity, the extent to which individuals can identify and describe their feelings (Salovey et al., 1995). Although it is conceptually close to emotional attention, prior research suggests that they are distinct constructs (Gohm & Clore, 2000). Future research could also investigate other moderators such as emotional intensity and expression.

Simply put, resilience is the ability to bounce back. Previous research has shown that meaningfulness in life is a strong predictor of an individual's resilience, since it helps individuals integrate the good with the bad in life. Since the current work links meaningfulness to a specific lay theory, it might be useful to understand how specific lay theories contribute to the overall emotional intelligence of individuals (Nussbaum, 2003). The study of the link between lay theories and emotional intelligence might help further understand how individuals can become more resilient to stress.

Prior research has consistently found that women score higher on emotional attention than men (Salovey, et al., 1995). Since women are also more likely to experience work-life imbalance (Duxbury & Higgins, 1991), a situation that leads to greater stress and consequently "busy=bad" lay theories, our research suggests that a large number of women strongly believe that feeling busy is bad. Consequently, future research should seek to find strategies that could shift "busy = bad" lay theories for people who are high on emotional attention. In addition, it would be worthwhile to identify what specific activities (e.g.

simple pleasures, Mead et al., 2016) contribute to give life meaning versus stress and consequently “work harder” to help shape individual’s lay theories and worldviews.

Another interesting aspect to consider is the role of mortality salience. There is much anecdotal evidence, and some research (Simon et al., 1998) that when mortality becomes salient, people begin to seek more meaningfulness in their life. The interplay between emotional attention and strength of lay theory uncovered in the present research, suggests, somewhat counterintuitively, that the effects of mortality salience might be less effective in transforming the worldviews of individuals who are high in emotional attention than those who are low in emotional attention. Given the perceived (not actual, see Pinker, 2011) increase in violence and danger of the times in which we live, mortality salience is a frequent and non-trivial factor that might play a role in our daily lives (Ferraro, Shiv & Bettman, 2005).

This research has also several limitations. First, the experimental results are based on a specific population (i.e. Mechanical Turk panelists). Second, our manipulations used several categories of activities to make stress and meaningfulness salient. This approach could potentially manipulate other constructs (e.g. emotions) in addition to meaningfulness and stress. Future work should focus on using a specific activity (e.g. work) and reframe it as either meaningful or stressful. Finally, in our empirical work we did not manipulate emotional attention. Future work can manipulate emotional attention to test the robustness of our findings. Last, since the overall assessment of how happy a person is, is a function of the feelings, thoughts and beliefs of an individual, it would be interesting to develop a greater understanding of what specific lay theories individuals hold that contribute to greater versus less happiness in daily life.

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## APPENDIX A

### How We Think About Our Busyness

People fall into two main camps when it comes to their attitude towards feeling busy and the general lack of time. As you read through the following descriptions please think about which camp the people you know generally fall in.

In your opinion, how do most people feel about feeling busy?

#### **The "Feeling busy is good" attitude**

To understand how this group of people feel, please read some of the statements that people with this attitude made in a recent research study.

**Remember, As you read through these sentiments, please reflect on how often you seem to hear sentences like these spoken by the people you know.**

- "Feeling busy makes me feel alive"
- "I love the powerful feeling of being busy"
- "I am invigorated by a busy semester"
- "Feeling busy feels like I am accomplishing something with my life"
- "Feeling busy gives my life meaning"
- "A busy person is a productive person"

#### **The "Feeling busy is bad" attitude**

To understand how this group of people feel, please read some of the statements that people with this attitude made in a recent research study.

**Remember: As you read through these sentiments, please reflect on how often you seem to hear sentences like these spoken by the people you know.**

- "I hate the nagging feeling of being busy"
- "Feeling busy constrains my life"
- "There are times in the semester I am so busy that I cannot even breathe"
- "Feeling busy feels awful"
- "I hate exam week because of how busy I feel"
- "Feeling busy makes me less productive"
- "Feeling busy takes the meaning out of life"

## APPENDIX B

## HEALTH\_SCIENCE

## Feeling Busy: It's Bad For You

Research shows that busyness has consequences

**T**he feeling of being busy is prevalent in modern society—and more commonplace than ever before. In fact, recent scientific research shows that people increasingly feel busy and report that they do not have very much time to spare.

In a recent issue of this magazine, we asked our readers to tell us about how they view the feeling of busyness.

This is part of an email we received from one of our readers: "My name is Sam, and I work full time. Between work and my two kids, I always feel busy. My schedule is jam-packed during the week, and I even have a lot to do during the weekends. But I believe feeling busy is bad for me and my family, and I would do anything to change it."

Scientists have also made many discoveries about the nature of feeling busy itself. The following are findings from recent scientific research on busyness:

Research shows that feeling busy is a bad thing. Scientific findings have revealed that busy people have *less* meaningful lives, earn *less* on average, hold *less* responsible positions and are *more* likely to suffer from mental disorders like extreme anxiety and depression. In other words, feeling busy is a negative sign and is associated with high levels of life dissatisfaction and stress.

In other words, research supports what Sam (and other readers below) had to say: **Feeling busy is bad.**

## READERS WEIGH IN ON...



- "I hate the nagging feeling of being busy" - *Alice T.*
- "Feeling busy constrains my life" - *Dave D.*
- "Feeling busy makes me less productive" - *Jennifer C.*
- "I hate exam week because of how busy I feel" - *Dan P.*
- "Feeling busy takes the meaning out of life" - *Tyler V.*
- "There are times in the semester when I'm so busy that I can't even breathe" - *Elizabeth H.*

## HEALTH\_SCIENCE

## Feeling Busy: It's Good For You

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Scientists have also made many discoveries about the nature of feeling busy itself. The following are findings from recent scientific research on busyness:

Research shows that feeling busy is a good thing. Scientific findings have revealed that busy people have *more* meaningful lives, earn *more* on average, hold *more* responsible positions and are *less* likely to suffer from mental disorders like extreme anxiety and depression. In other words, feeling busy is a positive sign and is associated with high levels of life satisfaction and well-being.

In other words, research supports what Sam (and other readers below) had to say: **Feeling busy is good.**

## READERS WEIGH IN ON...



- "Feeling busy makes me feel alive" - *Alice T.*
- "I love the powerful feeling of being busy" - *Dave D.*
- "I am invigorated by a busy semester" - *Jennifer C.*
- "Feeling busy gives my life meaning" - *Dan P.*
- "A busy person is a productive person" - *Tyler V.*
- "Feeling busy feels like I am accomplishing something with my life" - *Elizabeth H.*

## **APPENDIX C**

### **A Busy Day in Your Life**

Imagine you have the following to-do list for a busy day. Please think about doing each activity one by one and try to put yourself in the situation.

- Cleaning up your kitchen and dirty dishes
- Going to the post office to mail several packages
- Grocery shopping
- Filling up your gas tank and performing an oil change
- Having a medical check-up at the doctor's office
- Repairing some home appliances

### **A Busy Day in Your Life**

Imagine you have the following to-do list for a busy day. Please think about doing each activity one by one and try to put yourself in the situation.

- Caring for your lawn or houseplants
- Walking and playing with your (or your friend's) dog
- Attending a performing arts event
- Playing your favorite sport
- Reading book to your (or your friend's or family member's) children
- Cooking

## APPENDIX D

### What It Means To Live A Meaningful Life.

Being engaged in **meaningful activities** allows us to meet some of our most basic needs, such as socialization, a sense of accomplishment, a sense of purpose, play, as well as our need for cognitive and physical stimulation. Such **activities** also give us a sense of collaboration when we participate with others and increase life's meaningfulness.

There are four categories of activity that help human beings live a meaningful life i.e. feel valued, productive and purposeful.

**#1 Work.** This is a very important life experience that gives a person the sense they are making a difference. It is not about money, but that we experience who we are and what we can do as being of value to others. This feeling of purpose is critical in creating a sense of well-being and continued self-esteem.

**#2 Leisure and Socializing:** These are things we do because there are fun to us, make us feel good, or give us joy. These are the activities that we often share with others. They can be either passive or active, but always improve a person's mood and energy levels.

**#3 Self Care:** Taking care of ourselves includes the big and the little things in our personal "world of needs" and include tasks and attention to our body, our mind, our environment, our business, and even how we move ourselves from place to place.

**#4 Rest & Restoration:** This, is one that we don't often think of as activity, but is a part of how we fill our day, and especially important to be aware of when someone is experiencing brain change. Rest includes sleep but also "time" taken, alone or with others, that helps a person to "recharge or restore" themselves. Restorative activity usually includes spiritual renewal, and introverted or extroverted personality preferences.

### **What It Means To Live A Stressful Life.**

Being engaged in **stressful activities** is a part of our everyday life which can lead to distress, poor mental and physical health, and decreased well-being. Such **activities** also drain our resources which leads to lack of focus and poor performance in our daily life and increase life's stressfulness.

There are four categories of activity that cause human beings to live a stressful life i.e. feel tired, unproductive and without purpose.

**#1 Work.** For most people work is a major source of stress. Work activities involve meeting deadlines and dealing with uncertain or unexpected situations that can spiral out of control. Work-related activities may involve dealing with people under pressure that can create interpersonal tensions. Work can also conflict with other activities such as family responsibilities and leisure and which negatively influences our well-being.

**#2 Caring for others:** These activities involve helping others with their needs such as dealing with health conditions or financial problems. Dealing with these activities on a regular basis can cause chronic stress and severe health conditions.

**#3 Commuting:** Commuting on a daily basis is usually frustrating particularly when we are harried. Driving to work and back during rush hours creates stress, anxiety, and frustration and depletes our energy. We often experience road rage in ourselves and others when we experience stress during commuting.

**#4 Dealing with problems in the household:** Whether this is a health problem, financial problem, tensions with another person, child-related issues, or, even a technical problem at home (e.g. water leakage), these activities involve high levels of uncertainty and stress. They can create upheavals in your daily routines and make you rearrange your to-do list of the day or even week.

## Appendix E

### COMPUTATION OF “BUSY = GOOD” FOR ACTIVITIES REPORTED\*

Activity Description	Activity Code	Average Meaningfulness	Average Stress	“Busy = Good”	N
Using police and fire services	T100101	5	7	-2	1
Telephone calls to/from paid child or adult care providers	T160107	5	7	-2	1
Travel related to using lawn and garden services	T180904	3	5	-2	1
Self care, n.e.c.	T010399	3.57	5.56	-1.99	7
Security procedures related to traveling, n.e.c.	T181899	2.5	4	-1.5	2
Household management, n.e.c.	T020999	4	5	-1	1
Travel related to education, n.e.c.	T180699	4.33	4.67	-0.34	3
Caring for household adults, n.e.c.	T030499	4	4	0	2
Security procedures rel. to govt svcs/civic obligations	T100401	7	7	0	1
Watching boating	T130206	5	5	0	1
Watching running	T130222	6	6	0	1
Watching skiing, ice skating, snowboarding	T130223	4	4	0	1
Waiting related to attending sporting events	T130302	3.5	3.5	0	2
Security procedures related to traveling	T181801	3.5	3.27	0.23	22

Waiting associated w/banking/financial services	T080203	3.33	3	0.33	6
Financial management assistance for nonhh adults	T040505	4.63	4.25	0.38	8
Telephone calls to/from household services providers	T160106	4.79	4.37	0.42	19
Waiting associated with veterinary services	T080702	5.17	4.67	0.5	6
Research/homework n.e.c.	T060399	5.2	4.4	0.8	5
Travel related to education (except taking class)	T180682	4.03	3.11	0.92	65
Telephone calls to/from professional or personal care svcs providers	T160105	4.9	3.97	0.93	29
Travel related to using veterinary services	T180807	5.05	4.1	0.95	21
Watching wrestling	T130232	7	6	1	1
Telephone calls to/from government officials	T160108	5.1	3.9	1.2	10
Activities related to hh child's education, n.e.c.	T030299	5.75	4.5	1.25	4
Research/homework for class for degree, certification, or licensure	T060301	5.19	3.8	1.39	477
Waiting associated with vehicle main. or repair svcs	T090502	4.73	3.27	1.46	15
Waiting associated with medical services	T080403	4.8	3.32	1.48	54
Building and repairing furniture	T020302	4.71	3.14	1.57	14

Waiting associated with shopping	T070105	4.9	3.29	1.61	21
Travel related to taking class	T180601	4.29	2.63	1.66	304
Work-related activities, n.e.c.	T050289	3	1.33	1.67	3
Travel related to phone calls	T181601	5.05	3.35	1.7	40
Using vehicle maintenance or repair services	T090501	4.88	3.13	1.75	32
Waiting associated with helping nonhh adults	T040508	4.49	2.71	1.78	45
Telephone calls to/from education services providers	T160103	6.4	4.6	1.8	5
Purchasing gas	T070102	4.16	2.32	1.84	217
Working, n.e.c.	T050189	4.76	2.9	1.86	51
Travel related to using medical services	T180804	5.22	3.32	1.9	264
Job search activities	T050481	5.96	4.06	1.9	156
Waiting associated with hh children's health	T030303	6.23	4.31	1.92	13
Health-related self care	T010301	5.17	3.23	1.94	577
Waiting associated with nonhh children's health	T040303	6	4	2	2
Waiting associated w/admin. activities (education)	T060403	7	5	2	1
Using personal care services, n.e.c.	T080599	7	5	2	1
Waiting associated with relaxing/leisure	T120503	5.5	3.5	2	2
Pet and animal care, n.e.c.	T020699	5.4	3.4	2	5
Financial management	T020901	5.06	3.05	2.01	251

Travel related to using vehicle maintenance & repair services	T180905	4.96	2.95	2.01	76
Travel related to using real estate services	T180806	4.66	2.62	2.04	29
Travel rel. to using prof. & personal care services, n.e.c.	T180899	4.83	2.77	2.06	12
Travel related to working	T180501	4.72	2.64	2.08	4378
Household management & paperwork assistance for nonhh adults	T040506	5.54	3.46	2.08	37
Using veterinary services	T080701	6.22	4.11	2.11	9
Job interviewing	T050403	6.33	4.17	2.16	6
Waiting associated w/personal care services	T080502	3.17	1	2.17	6
Work, main job	T050101	5.43	3.23	2.2	6069
Bowling	T130107	5.21	3	2.21	14
Waiting associated w/ home main/repair/décor/constr	T090202	5	2.78	2.22	7
Attending gambling establishments	T120404	4.58	2.36	2.22	24
Tobacco and drug use	T120302	4.72	2.47	2.25	117
Taking class for degree, certification, or licensure	T060101	5.34	3.08	2.26	288
Comparison shopping	T070201	4.57	2.29	2.28	7
Travel related to personal care	T180101	4.74	2.42	2.32	178
Waiting assoc. w/socializing & communicating	T120501	6.33	4	2.33	3
Civic obligations & participation	T100201	5.18	2.82	2.36	11
Using social services	T100102	5.25	2.88	2.37	8

Storing interior hh items, inc. food	T020104	4.59	2.2	2.39	376
Household & personal organization and planning	T020902	4.93	2.54	2.39	1212
Eating and drinking as part of job	T050202	5.11	2.72	2.39	36
Helping nonhh adults, n.e.c.	T040599	5.68	3.27	2.41	22
Using health and care services outside the home	T080401	5.84	3.42	2.42	191
HH & personal mail & messages (except e-mail)	T020903	4.8	2.36	2.44	279
Waiting associated with caring for household adults	T030405	5.33	2.89	2.44	9
Grocery shopping	T070101	4.88	2.44	2.44	1025
	T189999	4.88	2.43	2.45	427
Travel related to work, n.e.c.	T180589	5.53	3.08	2.45	105
Computer use for leisure (exc. Games)	T120308	4.52	2.06	2.46	1046
Banking	T080201	5.08	2.62	2.46	107
Helping hh adults	T030501	5.23	2.77	2.46	13
Television and movies (not religious)	T120303	4.56	2.08	2.48	9312
HH & personal e-mail and messages	T020904	4.55	2.06	2.49	441
Interior maintenance, repair, & decoration, n.e.c.	T020399	5.5	3	2.5	2
Obtaining medical care for nonhh children	T040302	7	4.5	2.5	2
Telephone calls to/from salespeople	T160104	5.75	3.25	2.5	8
Kitchen and food clean-up	T020203	4.76	2.24	2.52	1726
Work, other job(s)	T050102	5.54	3.01	2.53	198

Purchasing food (not groceries)	T070103	4.76	2.22	2.54	680
Laundry	T020102	4.7	2.15	2.55	1498
Using in-home health and care services	T080402	5.78	3.22	2.56	9
Travel related to work-related activities	T180502	4.63	2.06	2.57	16
Travel related to volunteer activities, n.e.c.	T181599	4.44	1.87	2.57	16
Organization & planning for hh children	T030108	5.41	2.83	2.58	203
Travel related to grocery shopping	T180701	4.83	2.25	2.58	1615
Playing games	T120307	4.48	1.86	2.62	866
Travel related to shopping (except grocery shopping)	T180782	4.91	2.29	2.62	3961
Using clothing repair and cleaning services	T090103	4.57	1.93	2.64	14
Vehicle repair and maintenance (by self)	T020701	5.14	2.49	2.65	227
Travel related to using personal care services	T180805	4.62	1.97	2.65	115
Appliance, tool, and toy set-up, repair, & maintenance (by self)	T020801	5.31	2.65	2.66	96
Caring for & helping hh members, n.e.c.	T039999	4.33	1.67	2.66	3
Providing medical care to hh children	T030301	6.26	3.59	2.67	27
Helping household adults, n.e.c.	T030599	6.17	3.5	2.67	6

Looking after nonhh adult (as a primary activity)	T040402	6.17	3.5	2.67	6
Picking up/dropping off hh adult	T030503	5.34	2.64	2.7	64
Travel related to using financial services and banking	T180802	5.07	2.37	2.7	138
Interior cleaning	T020101	5.13	2.41	2.72	2342
Shopping, except groceries, food and gas	T070104	5.06	2.33	2.73	1939
Obtaining medical and care services for nonhh adult	T040404	6.75	4	2.75	4
Travel related to using pet services (not vet)	T180903	4.63	1.81	2.82	16
Home security	T020905	4.87	2.05	2.82	38
Relaxing, thinking	T120301	5.21	2.38	2.83	1753
Travel related to household activities	T180280	5.03	2.19	2.84	833
Travel related to attending sporting/recreational events	T181302	5.04	2.19	2.85	119
Travel related to using household services	T180901	4.9	2.05	2.85	21
Waiting associated w/eating & drinking	T110281	5	2.12	2.88	48
Travel related to using government services	T181081	5.17	2.25	2.92	9
Travel related to relaxing and leisure	T181283	4.91	1.99	2.92	799
Income-generating services	T050303	5.37	2.42	2.95	52
Travel related to caring for and helping hh adults	T180382	5.29	2.34	2.95	216

Vehicle & appliance maintenance/repair assistance for nonhh adults	T040504	5.42	2.45	2.97	33
Waiting for/with hh children	T030111	5.32	2.33	2.99	118
Exterior maintenance, repair & decoration, n.e.c.	T020499	4	1	3	2
Looking after hh adult (as a primary activity)	T030402	5.29	2.29	3	7
Providing medical care to nonhh adult	T040403	6.67	3.67	3	9
Caring for nonhh adults, n.e.c.	T040499	7	4	3	1
Security procedures related to work	T050103	4	1	3	2
Extracurricular music & performance activities	T060202	5.33	2.33	3	6
Extracurricular student government activities	T060203	6	3	3	1
Education-related extracurricular activities, n.e.c.	T060289	5	2	3	2
Administrative for education, n.e.c.	T060499	6.33	3.33	3	3
Using legal services	T080301	7	4	3	2
Using government services, n.e.c.	T100199	7	4	3	2
Socializing and communicating, n.e.c.	T120199	5	2	3	1
Watching water sports	T130229	4.67	1.67	3	3
Education, n.e.c.	T069999	6.07	3.07	3	14
Using personal care services	T080501	4.98	1.98	3	99
Travel related to socializing and communicating	T181201	5.19	2.16	3.03	1980

Activities rel. to purchasing/selling real estate	T080601	5.84	2.79	3.05	19
Telephone calls, n.e.c.	T169989	5.61	2.56	3.05	243
Travel related to caring for and helping nonhh adults	T180482	5.24	2.18	3.06	744
Travel related to attending or hosting social events	T181204	5.09	2.02	3.07	320
Other income-generating activities, n.e.c.	T050389	5.49	2.41	3.08	61
Interior arrangement, decoration, & repairs	T020301	5.66	2.57	3.09	229
Obtaining medical care for hh children	T030302	6.05	2.95	3.1	19
Housework, cooking, & shopping assistance for nonhh adults	T040501	5.72	2.6	3.12	64
Travel related to caring for and helping nonhh children	T180481	5.48	2.31	3.17	324
Travel related to caring for and helping hh children	T180381	5.65	2.47	3.18	1426
Watching racquet sports	T130218	4.8	1.6	3.2	5
Waiting associated with taking classes	T060103	5.2	2	3.2	10
Travel related to eating and drinking	T181101	5.16	1.96	3.2	2505
Food and drink preparation	T020201	5.43	2.22	3.21	5958
Listening to the radio	T120305	5.18	1.97	3.21	143
Using other financial services	T080202	6.11	2.89	3.22	9
Providing medical care to hh adult	T030403	6.58	3.35	3.23	26

Travel related to attending or hosting social events	T181202	5.13	1.89	3.24	335
Travel related to participating in sports/exercise/recreation	T181301	5.04	1.8	3.24	899
Travel related to volunteering	T181501	5.39	2.14	3.25	467
Travel related to using home main./repair/décor./construction svcs	T180902	6.75	3.5	3.25	4
Listening to/playing music (not radio)	T120306	5.38	2.09	3.29	160
Picking up/dropping off hh children	T030112	5.86	2.57	3.29	80
Homework (hh children)	T030201	6.25	2.94	3.31	252
Exterior cleaning	T020401	5.38	2.04	3.34	198
Physical care for hh adults	T030401	6.23	2.89	3.34	83
Eating and drinking	T110101	5.41	2.07	3.34	1583 8
Playing football	T130113	5.14	1.79	3.35	14
Waiting associated with helping hh adults	T030504	5.41	2.05	3.36	37
Using home maint/repair/décor/construction svcs	T090201	5.65	2.29	3.36	17
Playing billiards	T130105	5.06	1.69	3.37	16
Professional and personal services, n.e.c.	T089999	6	2.62	3.38	13
Watching soccer	T130224	5.92	2.54	3.38	13
Ponds, pools, and hot tubs	T020502	5.39	2	3.39	23
Waiting associated with caring for nonhh adults	T040405	6	2.6	3.4	5
Reading for personal interest	T120312	5.17	1.77	3.4	1841

Using pet services	T090301	4.86	1.43	3.43	7
Playing soccer	T130126	5.8	2.35	3.45	20
Waiting associated w/religious & spiritual activities	T140103	6.09	2.64	3.45	11
Picking up/dropping off nonhh adult	T040507	5.6	2.1	3.5	207
Telephone calls to/from friends, neighbors, or acquaintances	T160102	5.64	2.14	3.5	289
Home schooling of hh children	T030203	7	3.5	3.5	4
Using paid childcare services	T080101	6.7	3.2	3.5	10
Using interior cleaning services	T090101	5	1.5	3.5	2
Playing basketball	T130103	5.26	1.76	3.5	58
Watching softball	T130225	6.5	3	3.5	2
Exterior repair, improvements, & decoration	T020402	5.85	2.33	3.52	87
Hobbies, except arts & crafts and collecting	T120311	6.15	2.62	3.53	13
Softball	T130127	6.09	2.55	3.54	11
Obtaining licenses & paying fines, fees, taxes	T100103	6.36	2.82	3.54	11
Waiting for/with nonhh children	T040111	5.55	2	3.55	17
Taking class for personal interest	T060102	6.14	2.59	3.55	29
Playing baseball	T130102	5	1.43	3.57	7
Golfing	T130114	5.34	1.71	3.63	59
House & lawn maintenance & repair assistance for nonhh adults	T040502	5.8	2.15	3.65	65
Attending meetings for personal interest (not volunteering)	T120202	5.73	2.08	3.65	37

Socializing, relaxing, and leisure as part of job	T050201	5.67	2	3.67	3
Income-generating hobbies, crafts, and food	T050301	6	2.33	3.67	12
Waiting associated with using government services	T100381	6	2.33	3.67	3
Waiting related to playing sports or exercising	T130301	5	1.33	3.67	3
Writing for personal interest	T120313	6.31	2.62	3.69	16
Care for animals and pets (not veterinary care)	T020681	5.72	2.02	3.7	1431
Watching basketball	T130203	5.7	2	3.7	10
Physical care for hh children	T030101	6.15	2.44	3.71	2364
Looking after hh children (as a primary activity)	T030109	6.09	2.37	3.72	70
Obtaining medical and care services for hh adult	T030404	6.5	2.75	3.75	8
Rollerblading	T130122	5.13	1.38	3.75	8
Watching hockey	T130216	5.92	2.17	3.75	12
Dropping off/picking up nonhh children	T040112	5.91	2.15	3.76	11
Lawn, garden, and houseplant care	T020501	5.66	1.89	3.77	1002
Physical care for nonhh adults	T040401	6.57	2.79	3.78	28
Organization & planning for nonhh children	T040108	6.6	2.8	3.8	29
Attending sporting events, n.e.c.	T130299	5.71	1.86	3.85	7

Telephone calls to/from family members	T160101	6.13	2.28	3.85	496
Heating and cooling	T020303	5.74	1.87	3.87	66
Talking with/listening to hh children	T030186	6.24	2.37	3.87	521
Sewing, repairing, & maintaining textiles	T020103	5.89	2.01	3.88	106
Travel related to civic obligations & participation	T181002	5.44	1.56	3.88	24
Arts and crafts as a hobby	T120309	5.97	2.07	3.9	110
Boating	T130106	5.76	1.81	3.95	21
Dancing	T130109	6.2	2.25	3.95	20
Attending movies/film	T120403	5.54	1.57	3.97	105
Travel related to religious/spiritual practices	T181401	5.89	1.91	3.98	866
Housework, n.e.c.	T020199	6	2	4	2
Caring for & helping hh children, n.e.c.	T030199	6.25	2.25	4	8
Income-generating performances	T050302	5.33	1.33	4	3
Taking class, n.e.c.	T060199	6	2	4	1
Using medical services, n.e.c.	T080499	7	3	4	3
Using vehicle maint. & repair svcs, n.e.c.	T090599	5.5	1.5	4	2
Attending/hosting social events, n.e.c.	T120299	6	2	4	1
Relaxing and leisure, n.e.c.	T120399	5.45	1.45	4	11
Biking	T130104	5.75	1.75	4	52
Watching billiards	T130205	5	1	4	1
Watching dancing	T130209	7	3	4	1

Watching vehicle touring/racing	T130226	7	3	4	1
Travel rel. to socializing, relaxing, & leisure, n.e.c.	T181299	5	1	4	1
Socializing and communicating with others	T120101	5.99	1.97	4.02	3684
Running	T130124	6.16	2.13	4.03	94
Walking	T130131	5.95	1.92	4.03	467
Looking after nonhh children (as primary activity)	T040109	6.47	2.43	4.04	5
Research/homework for class for pers. Interest	T060302	6.71	2.62	4.09	7
Food presentation	T020202	6.29	2.18	4.11	91
Income-generating rental property activities	T050304	6	1.88	4.12	8
Playing sports n.e.c.	T130199	5.93	1.8	4.13	56
Working out, unspecified	T130134	6.05	1.88	4.17	306
Watching baseball	T130202	5.69	1.5	4.19	16
Fishing	T130112	5.82	1.62	4.2	56
Playing racquet sports	T130120	6.2	2	4.2	10
Weightlifting/strength training	T130133	6.15	1.95	4.2	75
Meetings and school conferences (hh children)	T030202	6.33	2.11	4.22	9
Arts and crafts with hh children	T030104	6.47	2.24	4.23	17
Arts and entertainment, n.e.c.	T120499	5.99	1.73	4.26	79
Attending performing arts	T120401	5.73	1.47	4.26	51
Playing sports with hh children	T030105	6.05	1.78	4.27	37
Participating in equestrian sports	T130110	5.71	1.43	4.28	7

Travel related to using childcare services	T180801	7	2.71	4.29	7
Physical care for nonhh children	T040101	6.4	2.11	4.29	100
Household activities, n.e.c.	T029999	6	1.67	4.33	3
Waiting associated with arts & entertainment	T120504	5.83	1.5	4.33	6
Attending or hosting parties/receptions/ceremonies	T120201	6.12	1.77	4.35	223
Using cardiovascular equipment	T130128	6.18	1.81	4.37	95
Attending hh children's events	T030110	6.54	2.15	4.39	217
Using lawn and garden services	T090401	6.4	2	4.4	5
Animal & pet care assistance for nonhh adults	T040503	5.58	1.16	4.42	19
Playing volleyball	T130130	5.78	1.33	4.45	9
Television (religious)	T120304	6.04	1.58	4.46	23
Arts and crafts with nonhh children	T040104	7	2.5	4.5	2
Playing sports with nonhh children	T040105	7	2.5	4.5	6
Homework (nonhh children)	T040201	6.8	2.3	4.5	10
Watching equestrian sports	T130210	5.5	1	4.5	2
Watching volleyball	T130227	5.5	1	4.5	2
Attending museums	T120402	6.31	1.77	4.54	26
Participating in water sports	T130132	6.14	1.6	4.54	122
Doing aerobics	T130101	6.18	1.64	4.54	11
Talking with/listening to nonhh children	T040186	6.55	2	4.55	108
Watching football	T130213	6.44	1.89	4.55	9
Playing hockey	T130117	6.43	1.86	4.57	7

Hiking	T130116	5.94	1.35	4.59	17
Watching biking	T130204	6.67	2	4.67	3
Administrative activities: class for degree, certification, or licensure	T060401	6.71	2	4.71	7
Playing with hh children, not sports	T030103	6.62	1.87	4.75	665
Extracurricular club activities	T060201	6.75	2	4.75	4
Participation in religious practices	T140102	6.64	1.86	4.78	404
Doing yoga	T130136	6.5	1.7	4.8	20
Attending religious services	T140101	6.56	1.68	4.88	691
Organization & planning for hh adults	T030502	6.4	1.5	4.9	5
Playing with nonhh children, not sports	T040103	6.72	1.81	4.91	132
Reading to/with hh children	T030102	6.65	1.73	4.92	211
Attending nonhh children's events	T040110	6.65	1.65	5	47
Caring for and helping nonhh children, n.e.c.	T040199	6.86	1.86	5	7
Using household services, n.e.c.	T099999	6.5	1.5	5	2
Climbing, spelunking, caving	T130108	6	1	5	1
Participating in martial arts	T130119	6.86	1.86	5	7
Skiing, ice skating, snowboarding	T130125	6.17	1.17	5	12
Religious and spiritual activities, n.e.c.	T149999	7	2	5	1
Religious education activities	T140105	6.59	1.58	5.01	99
Vehicle touring/racing	T130129	6.4	1.3	5.1	10
Reading to/with nonhh children	T040102	6.78	1.67	5.11	9
Hunting	T130118	6.42	1.26	5.16	26
Waiting associated with pet services	T090302	7	1	6	2

Waiting associated with using lawn & garden services	T090402	7	1	6	1
Government services, n.e.c.	T109999	7	1	6	1
Collecting as a hobby	T120310	7	1	6	1
Socializing, relaxing, and leisure, n.e.c.	T129999	7	1	6	1
Watching bowling	T130207	7	1	6	1

\* The activities are sorted in ascending order based on their “Busy = Good” value. “Activity Code” represents the 6-digit activity code. “N” represents the number of observations based on which the mean of stress and meaningfulness were assessed. “Busy = Good” is the balance between meaningfulness and stress (i.e. the difference between mean of meaningfulness and stress). All means are calculated on a scale of 1 to 7. “n.e.c.” stands for “not elsewhere classified” which means the reported episode couldn’t be classified under any of the other activity codes.

