PLAY HARD, WORK HARDER? HOW HOBBIES AFFECT EMPLOYEES' WORK AND LIFE

A Dissertation Presented to The Academic Faculty

By

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PLAY HARD, WORK HARDER? HOW HOBBIES AFFECT EMPLOYEES' WORK AND LIFE

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DEDICATION

To Tomer and Emma, for showing me what happiness is, and providing both joy and fun.

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SUMMARY

Decades of work-family research establishes that family life substantially influences experiences at work. While we have vast knowledge regarding the influence of family on work and vice versa, relatively little research examines the influence of other activities that employees engage in outside of work, considered a "third place" domain (Ashforth, Kreiner, & Fugate, 2000) and their impact on work. In this dissertation, I focus on hobbies as an exemplar for a "third place" domain, which affects employees' experiences across domains.

In researching hobbies, I employ theoretical perspective from theories of multiple domains. From one hand, hobbies align with role accumulation theory (Sieber, 1974) and can be a source of enrichment leading to greater energy and beneficial outcomes for other domains. On the other hand, in alignment with role strain theory (Goode, 1960), daily hobby involvement can be a source of depletion, leading to detrimental daily outcomes across domains. I examine these perspectives in the same theoretical framework, and by so doing add to multiple domains research in integrating contradictory theories regarding the effects of multiple domains on one another.

Across two studies I highlight the importance of hobbies for employees and examine the effects of hobby involvement as a between- and within-person phenomenon. In doing so, I facilitate future research regarding the effects of hobbies and other "third place" domains on employees' work, family, and on other domains in their lives more generally.

CHAPTER 1

INTRODUCTION

Bryan Reece is a 47-year-old manager of a financial services firm from San Antonio, Texas. Bryan is also "an ironman" and completed his first ironman in 2009 after spending almost 16 hours in a single day swimming (2.4-mile), bike riding (112-miles), and running (26.2-miles). Bryan trained for this ironman for approximately 2 years, spending a significant amount of time in training (Steinberg, 2012). Although ironman is somewhat of an "extreme" activity, the number of Americans that completed an ironman almost doubled between the years 2000 to 2006, rising from 20,000 people to 35,000 (Steinberg, 2012, 2018). Similarly to ironman, other "extreme" hobbies such as marathon-running, mud-races, and triathlons have also gained vast popularity in recent years (Stebbins, 2012), attracting advocates such as Reese Witherspoon, Pippa Middleton, Al Gore, and George W. Bush. Although these are "extreme" examples, many employees have various hobbies outside of work, that are diverse and range from playing Bridge (e.g., Warren Buffet and Bill Gates), Chess (e.g., Richard Branson), Zen meditation (e.g., Marc Beniof), and Baking (e.g., Marissa Myers), among others.

While managerial research did not previously dedicate attention to the relationship between hobby activities and work, a large body of work-family research establishes that domains outside of work, such as family, "spill-over" and affect employees work in various ways (Edwards & Rothbard, 2000). As established in that body of work, domains outside of work have a meaningful impact on employees work (and vice versa). Thus, the hobby domain, a domain outside of the domains of work and

family, is similarly likely to have an impact on employees' jobs and their personal lives. Yet, we have a limited understanding about how the hobby domain affects employees' work and lives, or how "third place" domains affect employees more generally (see research about volunteering for an exception; Rodell, 2013). Hence, in this dissertation I research hobbies as a "third place" domain and focus on the following research question: "how do hobbies affect employees work and life". In doing so, I aim to make several contributions to managerial research.

First and most importantly, I highlight employees' hobbies as a meaningful phenomenon in organizations. Examining hobbies is especially important since high levels of hobby involvement are likely to take significant amount of time and effort, which may be at the expense of time and effort employees would have otherwise spent at work (Gillespie, Leffler, & Lerner, 2002). Thus, by conceptualizing hobbies this dissertation sets the stage for future research regarding the effects of hobbies on employees' and their work.

Second and related, hobbies is an example for a "third place domain" (Ashforth, Kreiner, & Fugate, 2000), and by researching hobbies I highlight the potential effects of domains outside of work and family on employees work and their lives more broadly. Researching hobbies as a "third place domain" is especially timely and warranted as employees increasingly attribute greater importance to balancing their work and life outside of work and are looking for greater meaning outside of work (Twenge, Campbell, Hoffman, & Lance, 2010). Moreover, hobbies as a "third place domain" captures a more holistic representation of employees' lives, which are often composed of more than just their work and their family.

Third, in researching hobbies I contribute to theoretical perspectives regarding multiple domains, position hobbies in the multiple domains research schema, and draw connections between the domains of hobbies, work, and employees' personal lives. In doing so, I contribute to multiple domains research and address unanswered questions regarding *when* and *why* (Whetten, 1989) domains outside of work have detrimental or beneficial effects for employees (Greenhaus & Powell, 2006). Although most multiple domains research has examined either the positive or negative mechanisms between domains, without explicitly predicting when and why each will occur, I examine these differential effects in parallel. I contribute by demonstrating that a third place domain (i.e., hobby involvement) can be an enhancing force overall while also being a depleting liability daily for employees and for other life domains. In doing so, I capture the nuanced experience of multiple domains involvement, which can be both good and bad at different times.

Lastly, multiple domains research has mostly examined the effects of involvement across multiple domains on two broad family of outcomes: performance and well-being. I focus on these outcomes in examining *for what* (i.e., performance and well-being) are hobbies beneficial or harmful and by so doing position hobbies in the nomological net of management research.

CHAPTER 2

CONCEPTUALIZING HOBBIES

Clarifying what hobbies are (and are not) is an important stage in integrating hobbies into organizational research. In conceptualizing hobbies in the context of work, I rely on three main bodies of research and various definitions of related phenomenon: leisure research (Stebbins, 2015), multiple domains research (Rothbard, 2000), and corporate volunteering research (Grant, 2012; Rodell, 2013).

The dictionary definition of a hobby is: "an activity done *regularly* in one's *leisure* time for *pleasure*" (Merriam-Webster dictionary). The key elements in this definition is that a hobby activity is volitional and pleasurable, separate from work, and occurs in one's leisure time. However, not all activities employees partake in their leisure time are necessarily a hobby. As such, leisure research has further addressed the unique characteristics of hobbies, and defined a hobby as "an immediately, intrinsically rewarding, relatively short-lived pleasurable activity" (Stebbins, 1997). In that body of research, hobbies that are more "intense" or "extreme" have been referred to as "serious leisure", defined as: "an activity people pursue systematically and find substantial, interesting, and fulfilling" (Stebbins, 2015). I rely on the components of these definitions, integrate them, and conceptualize a hobby as:

"An activity done regularly outside of one's work or family role that is planned, voluntary, and intended to be gratifying"

In conceptualizing hobbies in the context of work, several key characteristics are important to highlight. First, a hobby is an activity that occurs outside of work. While work can mean different things for different people, especially given recent "gigeconomy" developments (Burtch, Carnahan, & Greenwood, 2018), work is generally considered to be any type of paid employment (Bittman, Rice & Wajcman 2004; Sayer 2016) that is one's source of income (Menges, Tussing, Wihler, & Grant, 2017). While employees may pursue their hobbies during their work time, in the physical space of work, or with colleagues, a hobby is outside of one's work-role and is not an innate component of an employee's responsibilities at work.

Second, a hobby is an activity employees pursue regularly, as opposed to a nonrepetitive leisure activity. "How often" consists of "regular" is not the key element, rather, the occurrence of the activity in fixed intervals on an ordinary basis is key. For example, people typically ski only in the winter, but if skiing occurs on a regular basis during the winter, it can be considered a regularly-occurring activity.

Third, while leisure research has used the term "pleasurable" to describe a hobby activity, hobby may not necessarily be pleasurable in the sense that pleasure is a shortlived, immediate, and hedonic experience (Stebbins, 2000). However, hobbies may not be pleasurable in this short-lived, immediate sense (e.g., eating ice-cream), but they nevertheless provide a source of meaning or other intrinsically-rewarding benefits. Thus, I adopt the term "gratifying" to describe the hedonic, intrinsically-rewarding, experience of hobby involvement.

Fourth, managerial research distinguishes between spontaneous (reactive) behaviors and planned (proactive) behaviors (Rodell, 2013). While spontaneous behavior

of leisure consists of activities people may do when they have "free time" (e.g., reconnecting with a friend), proactive behavior are those that employees plan for in advance and dedicate time towards (e.g., volunteering; Rodell, 2013). As such, a hobby activity is a planned, proactive, behavior employees partake.

Lastly, hobby activity is volitional, in the sense that it is a voluntary activity employees choose to pursue, they do so voluntarily, and it is not their role-requirement or job responsibility (Latham & Pinder, 2005).

While the definition above captures the hobby activity, the manner with which employees pursue their hobby can also be conceptualized in several different ways. Throughout this research I conceptualize the manner with which employees pursue their hobby as hobby involvement. Similarly to other volitional activities, hobby involvement can be conceptualized according to its direction, intensity, and persistence (Latham & Pinder, 2005). Direction represents an initial decision to engage in a hobby, intensity represents the level of hobby involvement, and persistence represents for how long or the tenure of the hobby activity. Thus, although various motivations may trigger employees to decide to engage in a specific hobby (Steinberg, 2012; Gillespie et al., 2002), the focus of this research is on hobby involvement, which represents the level of intensity of hobby pursuit. Hobby involvement represents a behavioral view regarding hobbies and is consistent with other volitional behavior in the context of work, such as volunteering (Rodell, 2013; Stebbins, 1992). Similarly to volunteering, hobby involvement can be conceptualized as the intensity of one's hobby involvement (Rodell, 2013) or as the amount of time dedicated to the hobby activity (Musick & Wilson, 2008).

Hobby involvement is a continuum, where individuals can be involved in their hobbies at differing levels. For example, running can take a form of low involvement, e.g., running for 10 minutes once a week, or high involvement, e.g., running for 2 hours every day. Hobbies are diverse and can include various different activities. For example, hobbies can include playing video games, playing chess or bridge, collecting comic books, dog showing, community theater, playing volleyball, swimming, and sketching, among others (Gelber, 2010). Throughout this research, I use the term "hobby" as an umbrella term that captures any type of hobby activity. Although the specific hobby may also be important and may potentially predict different outcomes for employees, as the first examination of hobbies in the context of work, my predictions revolve around the generalizable aspects of hobbies as an activity that employees pursue outside of work which is "done regularly outside of one's work or family role that is planned, voluntary, and intended to be gratifying".

In the following section, I review research about leisure that can inform our knowledge about hobbies.

2.1 Hobbies as a Form of Leisure

Leisure research suggests that hobby is an activity employees partake in their time outside of work, sometimes referred interchangeably as "leisure time" (Stebbins, 1992). Leisure is often considered to be a time that is dedicated to rest and recovery from work (Sonnentag, 2003), and is defined as "freedom from activity or labor" (Meriam-Webster dictionary) or "time free from work or other demands and duties" (Babylon dictionary). However, being involved in a hobby is not necessarily "freedom from activity" since it may consist of a demand by itself, especially when people are highly involved in a hobby, which may require a significant investment of time and energy.

Leisure activities, otherwise also referred to as leisure experiences, revolve around the subjective assessment of individual's leisure, and is somewhat different from the plain term leisure – which describes the actual element of free time (Tinsley & Tinsley, 1986). Thus, the experience of leisure, rather than the leisure itself, is the focus of many theories on leisure. There is a general agreement that there is not a single leisure experience, but a continuum of leisure experiences (Kaplan, 1975), and that they vary in their overall intensity from barely perceptible to intense; which corresponds to my conceptualization of hobbies and hobby involvement. Thus, although when hobbies are intense they are not necessarily leisurely in their nature, research on leisure provides useful insights for the study of hobby involvement.

In general, leisure activities are considered to provide a source of happiness for individuals, although different leisure activities may have a different impact of different facets of happiness (Hills & Argyle, 1998). Unlike other activities in which individuals engage in their lives, such as work, leisure activities are viewed as being under the personal control of individuals. Thus, leisure activities are most commonly taken voluntarily, and although they can be physically taxing (such as sports activities), they are mostly associated with positive mood that is generated as result of participation in the activity (Hills & Argyle, 1998).

Since leisure activities are volitional in nature, research has examined two main research questions: (1) why individuals choose to engage in leisure activities; (2) why individuals choose to engage in some leisure activities over others. Research has mostly

reached a consensus regarding the answers to these two major questions, as described next.

Regarding the first question: "why individuals engage in leisure activities", research suggest that people participate in hobby activities because it satisfies important psychological needs such as need for affiliation, enhancement, self-expression, nurturance, and sensibility. As such, when employees choose to engage in leisure activities it can be related to satisfying needs that they are not able to satisfy at work, or satisfying needs that are not satisfied to the full extent at work (Tinsley & Eldredge, 1995). The research suggests that when employees satisfy these various needs through their hobby, it may not be as important to satisfy them through their job, which highlights the importance of examining hobbies and work in tandem.

The latter research question: "why individuals engage in some leisure activities over others" is answered via efficacy-related theories, and suggest that people engage in hobbies because it enhances their efficacy or because they feel that they excel in them, allowing them to experience subjective success. The self-efficacy and satisfaction that emerged from the successful completion of the task will thus predict which activities individuals partake in the first place, as well as when and why they will continue to engage in those activities, rather than participating in other activities (Hills & Argyle, 1998; McAuley, 1993). For instance, Bandura (1977) argued that individuals engage in activities that they believe they are good at, and as a result do those activities more often.

Research on leisure provides other related findings that can be useful for the study of hobbies. For instance, research has suggested that the intensity of leisure activities vary (Tinsley, Hinson, Tinsley, & Holt, 1993), and although they are typically

characterized by being freely chosen and intrinsically satisfying (Tinsley et al., 1993), some forms of leisure also require disciplined effort, commitment, and a sense of obligation (Bordin, 1979). In addition, the research demonstrates that the type of leisure experience and its intensity may be impactful for the way employees experience it. For example, in qualitative interviews, individuals mentioned that leisure activities can sometimes involve feelings of fearfulness, stress, and fatigue, and described their most memorable leisure experiences as carefree, exciting, novel, and unsettling (Tinsley et al., 1993). In a similar vein, Tinsley and Tinsley (1988) have theorized that leisure experiences can sometime be stressful or unpleasant at the time of engagement, but can be pleasant in anticipation or recollection of the experience itself. Thus, when employees participate in hobbies with high intensity, it may not always be pleasant at the time of participation, but the experience may nevertheless provide a source of meaning, excitement, and novelty, that employees may not be able to draw from other domains in their lives.

Hobbies and leisure are not synonymous, although they may have some overlapping characteristics. As such, not all leisure activities are hobbies and vice versa; hobby involvement is not necessarily a leisure activity per se. Research on leisure has recognized these differences between leisure and hobbies. As such, research has investigated hobbies as a form of "serious leisure", which captures the potential of hobbies to consist of a demand by themselves, and is a form of leisure in which individuals often engage with high level of involvement and "seriousness" (Stebbins, 1992a). Whereas a leisure activity is "immediately, intrinsically rewarding, relatively short-lived pleasurable core activity, requiring little or no special training to enjoy it"

(Stebbins, 1997a, p. 18), serious leisure is defined as "the systematic pursuit of an amateur, hobbyist, or volunteer core activity that people find so substantial, interesting, and fulfilling that, in the typical case, they launch themselves on a leisure career centered on acquiring and expressing a combination of its special skills, knowledge, and experience" (Stebbins, 1992, p. 3; Stebbins 2015, p. 5). Whereas early research suggests that serious leisure will develop into a career in the hobby domain (Stebbins, 1992), recent research recognizes that people engage in "serious leisure" regardless of their job (Stebbins, 2015).

Serious leisure research helps to inform our knowledge regarding hobbies. As such, research suggest that when people are involved in serious leisure they invest a lot of time in it. In addition, the pursuit is done with "noticeable intentness" and passion, in a way that is greater than "forms of much of casual leisure" (Stebbins, 2015, p. 18). Thus, the intensity, commitment, and the significant dedication of time and energy to the activity characterize serious leisure (but not necessarily other leisure activities), which is expected to have a significant impact on employees and their job.

The effects of hobbies on employees and their work has also been investigated in research about leisure, but the evidence regarding the ultimate effects of hobbies on employees' work is inconclusive, and little is known regarding the work implications for employees who are involved in hobbies. From one hand, some research suggests that hobbies will not have direct interference with work since employees prioritize their work over their hobby (Stebbins, 2015). On the other hand, research suggests that thinking about one's hobby provides a distraction from work, albeit pleasant (Stebbins, 1992a), which likely carries consequences for one's job. Additionally, the effect of hobbies on

employees' well-being and on their personal lives is also unclear. Whereas research suggests that hobbies foster well-being by enabling fulfillment (Haworth & Hill, 1992; Mannell, 1993), there is also evidence regarding the negative effects of hobbies on family conflict (Goff, Flick, & Oppliger, 1997), including increased likelihood of divorce (Stebbins, 1979).

2.2 The Unique Characteristics of Hobbies

Prior research regarding leisure suggests that specific hobby characteristics are important for the effects hobbies will carry for its advocates. These characteristics will also affect the extent to which one's hobby is important for other domains in their lives. While the vast majority of research on hobbies has focused on a specific type of hobby and has been mostly theoretical (Stebbins, 1992), it suggests several broad observations regarding the effects hobbies will carry, relative to other leisure activities. The characteristics that are the most impactful for employees are reviewed next.

A major characteristic of a hobby activity (relative to a leisure activity) is that people often dedicate a significant time and/or effort to their hobby. One reason people may dedicate a lot of time towards a hobby activity is because they want to develop skills or improve their "hobby performance". For example, the development and polishing of skills such as playing a musical instrument may require a large dedication of time in order to acquire and polish music-playing skills (Stebbins, 2000b). More importantly, a hobby is often an activity that is so attractive for the individual that they want to set aside time in order to engage in the activity. The high level of attractiveness of the hobby may make the dedication of time uncontrollable, since the hobby's appeal for the participant is so strong that they allocate, whenever possible, time for their hobby (Stebbins, 2015, p.

69). Lastly, there is often a feedback-loop in hobby involvement, such that with increased investment of time and energy participants become more committed to their hobby, which will than further increase their inclination to invest in it (Stebbins, 1992a).

The commitment to a hobby activity is another main characteristic of hobby involvement. Commitment to a hobby is important for multiple domains (Marks, 1977) since commitment to a domain affects employees decisions regarding resource allocation, especially when they are significantly more committed to one domain while being less committed to another. One's commitment to their hobby is important since hobby commitment will affect how individuals make decisions regarding time allocation between domains, as they may prioritize the hobby (on the expense of other domains). Thus, an individual's commitment to their hobby will increase the hobby's importance in employees' lives and will affect the ways they choose to spend their time and thus affect other domains in their lives.

Related, unlike other forms of leisure (e.g., watching TV), hobbies allow people to have a sense of continual improvement. The opportunity to feel a sense of mastery is important because it affects the psychological experience of being involved in a hobby and will enhance the sense of meaning the hobby has for an employee, as described by a 61-year-old cyclist: "I am better than I was, but I will never be good" (Klopp, 2014).

Lastly, while people are not likely to have strong identifications with their leisure activities, people are likely to identify with their hobby and define themselves by their hobby involvement, i.e., hobby identity. Hobby identity is the sense that one's hobby is integral to who they are and defines them as individuals. For example, when people complete an ironman competition, they are told at the finish line: "you are an ironman"

(Steinberg, 2012), and not: "you completed an ironman," suggesting that this is *who they are* and not what they *do*.

2.3 Why are Hobbies an Important Phenomenon in Organizational Research?

In the United States, a full time employee has, on average, 5 hours and 5 minutes of leisure in a workday (Bureau of labor statistics, 2014; American Time Use Survey [ATUS], 2014), compared to an average of 8.9 hours spent at work, 7.7 hours sleeping, and 1.2 hours taking care of others (the rest is dedicated to eating and drinking). Thus, employees' leisure time is one of the most significant components in employees lives, after work, sleep, and sometimes family. However, other than the mutual influences of work and family (Rothbard, 2001), limited managerial research examines the effects of specific activities in which employees engage in during their time away from work on their work and lives.

Initial evidence regarding the importance of voluntary activities outside of work comes from literature on volunteering that has examined how volunteering outside of work impacts employees' behavior and performance at work (Rodell, 2013). Findings demonstrate that volunteering can be a source of meaningfulness for employees, and satisfy needs that arise at the workplace, whether employees experience lack of meaningfulness at work or wish to enhance meaningfulness experienced at work (Rodell, 2013). This research suggests that activities employees partake in their time away from work serve as an important vehicle for employees to satisfy their needs, whether they are unable to fulfil their needs at work or if they wish to enhance and extend fulfilment from work (Grant, 2012; Rodell, 2013; Vogel, Rodell, & Lynch, 2016). In addition, as millennial employees enter the workforce, greater attention is placed on the balance

between life and work and having an increased purpose in life (Twenge, Campbell, Hoffman, & Lance, 2010). Thus, it is becoming increasingly important to investigate the effects of activities outside of work on employees and work-related variables.

Specifically, when employees engage in hobbies with high level of involvement, it is likely to have an impact on work-related variables since the effort dedicated to the hobby may come on the expense of available effort and time to dedicate for work. Examining the interplay between hobbies and work is also important because it portrays a more accurate representation of modern day lives, in which many employees have rich lives outside of work, and those lives may be meaningful and impactful for employees and for their work consequences. Relatedly, there has been a surge in the number of employees who adopt hobbies and engage in them with high levels of involvement (Wahba, 2015).

Extending multiple domains research, hobbies is an exemplar for employees' "third place" domain, which carries important consequences for employees, their work, and their personal lives. Examining hobbies specifically is important because it is a voluntary activity that can potentially compensate for negative experiences at work and improve employees' job performance (Grant, 2012; Rodell, 2013). Moreover, organizational scholars have called for more research regarding the impact of specific forms of leisure outside of work on the work domain (Vogel et al., 2016, p. 18).

CHAPTER 3

THEORETICAL OVERVIEW: THEORIES OF MULTIPLE DOMAINS

The multiple domains literature examines diverse mechanisms that connect different domains in employees' lives (Edwards & Rothbard, 2000). Multiple domains research combines theoretical perspectives from foundational theories on multiple roles and role expectations (Marks, 1977; Sieber, 1974), resource theories (Hobfoll, 1989, 1998; Siegrist, 1996), and boundary theories (Ashforth et al., 2000; Katherine, 1991; Rothbard, Phillips, & Dumas, 2005) in explaining and predicting the effects of employee involvement in multiple domains and their outcomes. Since diverse theoretical perspectives are integrated in examining the effects of employee engagement in multiple domains (Rodell, 2013; Rothbard, 2001), researchers have used the term "theories of multiple domains." However, theories of multiple domains is in fact an "umbrella" term, as it combines several theoretical perspectives (Rodell, 2013). As such, since it is not a theory per se, it is referred hereafter as "multiple domains theory/research".

Of specific interest in multiple domains research is the nature of the relationship between different domains and whether they are a source of depletion or enrichment for one another (Greenhaus & Beutell, 1985; Greenhaus & Powell, 2006; Rothbard, 2001). At a broad level, the majority of research examines whether multiple domains benefit or harm one another. Overall, suggesting that multiple domain involvement can be resource enhancing or resource depleting, and the deficit or additional resources generated by a certain domain will then spillover, which will detract or enhance from experiences in another domain. The potential for beneficial interactions between domains have been examined using mechanisms such as enrichment, spillover, and compensation (Greenhaus & Powell, 2006), whereas the potential for detrimental effects between domains have been explored through mechanisms such as resource drain and conflict (Greenhaus & Beutell, 1985).

In managerial research, multiple domains theories have emerged in an attempt to explain and predict the influence of family on work and vice versa and thus most research has traditionally focused on the relationships between family and work (Greenhaus & Powell, 2006; Westring & Ryan, 2010). Domains beyond these two major life domains have been referred colloquially as a "third-place domain" (Ashforth et al., 2000), since employees are often engaged in more than these two domains. As an exemplar for a "third place" domain (Ashforth et al., 2000), the hobby is a voluntary domain in employees' lives employees choose to partake, which makes it distinct from work and family lives, domains that are less voluntary on a daily basis.

In investigating hobbies as a "third place" domain, it is crucial to examine the other two main domains in people's lives: their work and their family (Edwards & Rothbard, 2000, p. 179). I adopt previous definitions and define work as an instrumental activity intended to provide goods and services to support life (Piotrkowski, Rapoport, & Rapoport, 1987). In the typical case, work entails membership in an employing organization that compensates the employee for their contributions (Burke & Greenglass, 1987; Kabanoff, 1980). The primary goal of work is to obtain extrinsic, most commonly monetary, rewards (Locke & Latahm, 1990), although it can also provide intrinsic rewards (Deci & Ryan, 1985).

I define family as a group of people that are related by biological ties, marriage, social custom, or adoption (Burke & Greenglass, 1987; Piotrkowski, Rapoport, & Rapoport, 1987). Similar to work, family signifies membership in a social organization to which the member contributes (Zedeck, 1992; Edwards & Rothbard, 2000, p. 179). However, the goals of these contributions, unlike work, is to maintain the family, to enhance the well-being of other members of the family, and to strengthen/maintain the relationships with other family members. More recent theorizing extends this view and refers to family more broadly as "life" to account for major changes in employment population and the structure of families (Powell, Bolzendahl, Geist, & Steelman, 2010; Powell, Francesco, & Ling, 2009).

From a multiple domains perspective, hobbies are a distinct domain in employees' lives, where "domain" represents a sphere or an area of unique activity (Ashforth et al., 2000). Domains affect one another in a way that is potentially distinct from multiple roles in the same domain (e.g., parent and a spouse) since transition between domains are more likely to require greater cognitive effort and thus to be more costly (Frone, Russell, Cooper, 1992). Thus, managing three domains (instead of two) requires greater cognitive effort and will thus have important implications for employees' lives.

In adopting a multiple domains perspective, I conceptualize hobbies as a distinct domain in people's lives. I follow the previous research and focus on relationships between hobbies, work, and life in situations in which work, family, and hobbies are conceptually distinct (Edwards & Rothbard, 2000, p.180). Although people may be involved in hobbies at work or with their families or colleagues, the nature of the activity is distinct from both work and family, and hobbies are not a considered a role-

requirement in either one's work or the family domain, which are domains that have different role-expectations than the hobby domain.

CHAPTER 4

THEORETICAL DEVELOPMENT

In general, this research is guided by examining the effects of hobby involvement on employees' work and their lives beyond work. Specifically, it examines the questions: (1) are hobbies beneficial for employees' performance in some way, or are hobbies represent a distraction which will thus harm performance at work? And (2) are hobbies beneficial for employees' well-being, or do they place additional demands that harm employees and their well-being and generate conflict between domains? These potential differential effects on job performance and personal lives are explored via the contrasting mechanisms underlying theories of multiple domains, i.e., role accumulation theory (Sieber, 1974), examined as "enrichment" vs. role strain theory (Goode, 1960), examined as "depletion".

Theoretical perspectives from multiple domains research highlights the notion of scarcity vs. expansion of resources (Marks, 1977). As such, two somewhat opposing perspectives have been examined as the underlying basis for the beneficial or detrimental effects of multiple domains. The first, originally suggested by Moore (1963, p. 108), claims that time and energy are scarce (Becker, 1965), and thus "the probability of role conflict for the multiple joiner is somewhat more than abstract and hypothetical." According to this perspective, the scarcity of employee's time and energy makes conflict between domains likely, and thus when employees engage in multiple domains it will be associated with negative consequences due to the friction and strain that is generated between the domains.

However, the opposing perspective suggested in multiple domains research, role accumulation theory (Sieber, 1974), argues that resources are flexible and can expand and contract. As suggested by Marks (1977, p. 935), employees experience over- and undercommitments in their lives, which will guide their resource allocation decisions when they engage across multiple domains. According to this perspective, the varying levels of commitment to a domain in one's life will determine if the individual has expandable or limited resources towards that specific domain. As such, when employees are highly committed to a domain, they will have expandable time and energy towards that domain, whereas as their commitment to a domain decreases, they will be more likely to decrease investment of time and energy towards that domain. Hence, their resources in that the domain are more likely to be limited.

When individuals are engaged across multiple domains, those domains will impact one another in a way that can be *depleting* or *replenishing* (Edwards & Rothbard, 2000; Greenhaus & Beutell, 1985; Greenhaus & Powell, 2006; Rodell, 2013; Rothbard, 2001). Multiple domains theorizing provides the foundational concept that domains can simultaneously detract from and enrich employees work and their personal lives (Greenhaus & Beutell, 1985; Greenhaus & Powell, 2006). Specifically, based on these two theoretical viewpoints, I propose that hobbies are enriching for employees *overall*, and subsequently associated with positive effects for their work and personal lives, but also depleting *daily*, and lead to negative downstream consequences for *daily* work and personal lives. By examining enrichment and depletion as mechanisms that may occur in parallel, I am able to address calls to examine concurrent positive and negative effects of behaviors at and outside of work (Bono et al., 2013; Vogel et al., 2016), highlighting the effects of a single phenomenon as both resources-generating and resources-detracting.

As such, my Hypotheses suggest that between-people, greater hobby involvement is associated with enrichment and better job performance and well-being. However, greater daily hobby involvement will be associated with depletion and subsequently lesser job performance and greater conflict daily, relative to days in which the same person is less involved in their hobby. Since the daily level examines within-person hobby involvement whereas the between-person level examines the overall effects of hobbies (which I argue is more than the aggregate of the daily effects) differential and potentially opposing mechanisms are plausible. In the following section, I explain how the same activity, hobbies, can be both enriching overall while also depleting daily.

4.1 How can Hobbies be both Enriching and Depleting?

As described above, I propose that the overarching effects of hobbies for employees will differ from the daily effects of their hobbies. Whereas at the daily level employees have limited control and flexibility and/or greater demands over their resources, employees have more control and flexibility over their resources across a longer period of time, such as a week or a month. Thus, I suggest that the greater flexibility makes the overarching impact of hobby involvement on employees work and personal lives is not a mere aggregation of their daily hobby involvement. Since the daily effects of hobbies are not the same as the overall cumulative effects of hobbies, hobby involvement will have differing effects overall from their daily effects, making it a nonisomorphic phenomenon.

Theoretical support to the notion that the same phenomenon can have an overarching effect that is different from its momentary effects comes from research regarding "the parenting paradox" (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004; LeMasters, 1957; Rossi, 1968). "The parenting paradox" (LeMasters, 1957; Rossi, 1968) describes parenting as "all joy no fun" activity (Senior, 2014), or a "high cost/high reward activity" (Doherty, 1997, 2000). The "parenting paradox" describes the idea that the daily/momentary experience of being a parent do not add up to the overall experience of parenting (Kahneman et al., 2004).

Research uncovers several underlying reasons for these contradicting effects. For starter, while parenting, for most parents, provides a sense of meaning and purpose to life, it is not only positive, and is composed of many difficult and "not fun" moments (Senior, 2014). Moreover, while parents report greater life satisfaction overall and, on average, are happy that they had kids, when asked regarding their happiness at a specific moment, parents describe less momentary satisfaction than the average childless adult (Deaton & Stone, 2013). While parents reported, on average, more positive emotions during the time they spent with their kids, they report lower satisfaction in other times of the day because of the overload of tasks and assignments surrounding children upbringing (Deaton & Stone, 2014; Kahneman & Deaton, 2010).

Relatedly, while being a parent carries a strong personal identity that has positive associations and beneficial effects for people regarding "who they are", the arduous tasks that accompany daily parenting are not always enjoyable (e.g., cleaning bottles, changing diapers, etc.) and those carry substantial negative effects for parents' momentary and daily levels of happiness (Senior, 2014). More broadly, this phenomenon highlights that

some phenomenon, such as being a parent, is not an aggregation of the moment-tomoment experience of parenting, where the "highs are higher but the lows are lower" (Deaton & Stone, 2014).

In the context of hobbies, this provides support to the notion that hobby involvement can be a source for pride and beneficial effects in general, but these effects are not cumulative such that daily hobby involvement can be taxing for one's resources and thus carry detrimental effects on a day-to-day basis.

Empirically, the difference between what is captured daily vs. at the betweenperson level provides additional support for the notion that the overall effects are not necessarily an aggregation of the daily effects. Whereas daily (within-person) effects capture variation in the same person's momentary or daily experiences, overall betweenperson effects capture variation between-people. As such, the within-person level is aiming to explain and predict how, why, and when the *same person's* behavior, cognitions, or states will vary. However, the between-person level aims to explain and predict variation between people to answer questions regarding how, why, and when *different people's* behavior, cognitions, or states will differ. As the questions that these levels examine and intend to answer are different, it is plausible that they involve different mechanisms and differential or even contradicting effects.

Specifically, in the context of within vs. between-person hobby involvement, two independent questions are addressed regarding the effects of hobbies. At the daily-level, this research examines the daily effects of varying levels of hobby involvement withinperson. The question asked is: how does daily hobby involvement affect the work and personal lives in days they are involved in their hobby vs. days they are less involved (or

not involved)? However, the overall effects of hobbies is examined by investigating variation in hobby involvement between people. The exploration revolves around the effects of hobby involvement among people who are more involved in a hobby, relative to those that are less involved in a hobby (or not involved at all). The question that the between-person model aims to address is: what are the overall effects of hobby involvement for employees work and their personal lives (relative to those that are less involved in a hobby)?

The specific Hypotheses for each one of these predictions are described in the following section and detailed in Figure 1. I theorize regarding the overall enriching effects of hobbies (between-person) initially and follow by theorizing regarding the depleting effects of daily hobby involvement.


FIGURE 1 Theoretical Framework.

4.2 The Overarching Beneficial Effect of Hobbies

The enriching effects of hobbies align with the theoretical perspective of role accumulation theory (Sieber, 1974). According to role accumulation theory (Sieber, 1974), although time is finite (Becker, 1965), energy and resources can be expanded (Marks, 1977). As such, role accumulation theory (Sieber, 1974) suggests that multiple domains can lead to gratification when activities in those domains generate psychological or energetic resources (Sieber, 1974). As suggested by role accumulation theory, multiple domains will be beneficial to one another and experiences in one domain will positively influence behavior or attitudes in another domain (Burke & Greenglass, 1987; Lambert, 1990; Zedeck, 1992).

In alignment with role accumulation theory (Sieber, 1974), I propose that hobby involvement will be enriching overall, which will, in turn, improve employees' job performance at work and their overall well-being. Specifically, hobby involvement will be beneficial for employees' work and life domains because they enable them to supplement and complement their experiences from work and thus increase performance and well-being.

The beneficial effects between domains have been captured by several broad processes, such as spillover, enhancement, or enrichment (Rodell, 2013; Rothbard, 2001). Whereas spillover captures attitudes that emerge in one domain and becomes so ingrained that they are carried over to another domain (Blum, 1953), enhancement captures the expected beneficial outcomes of multiple domains (Rodell, 2013), but is often used to convey improvement in positive states, rather than an actual increase in availability of resources. Throughout this research, I adopt the term "enrichment", as it most

appropriately captures the potential beneficial effects of hobbies for employees achieved by generating resources that can be targeted towards any other domain in employees' lives. In the multiple domains literature, enrichment is defined as "the extent to which experiences in one role improve the quality of life in the other role" (Greenhouse & Powell, 2006, p. 72) and conveys the process by which experiences in one domain spillover and have a positive impact on another domain by generating resources that can be used or invested in any other domain.

Although research on the effects of hobbies on employees is scant, the hobby characteristics and the nature of hobby involvement suggest that hobby involvement can be resource generating. For example, qualitative research on leisure crafting (stemming from research on job crafting; Berg, Wrzesniewski, & Dutton, 2010) suggests that jobs that enable employees flexibility in leisure time makes them appreciate their job to a greater extent. Having the autonomy to participate in a leisure activity and spend significant amounts of time engaging in their hobbies will thus make employees more grateful regarding their job and have greater positive affectivity towards work (Berg, Grant, & Johnson, 2010). These feelings have the capacity to increase commitment to their work and to make greater efforts to improve their performance, and that motivational boost is a form of additional resources. As described by an employee who plays the guitar in addition to having a full time job as a professor (cited by Berg and colleagues, 2010, p. 991):

"It reinforces that I'm in the right place, in the right career, but a career that allows me to pursue my other passion at the appropriate level. I listen to music regularly. I get to be an entertainer in the classroom. I play the piano when I'm at home. I have a guitar in my office, which I strum on every once in a while, and when little opportunities come along to form a band, I'll do that. But my career and my life is being a professor." The gratification of the hobby will also be resources generating which will emerge from the enjoyment and meaningfulness employees experience at their hobby domain, which can supplement or enhance meaning and enjoyment from work (Berg et al., 2010; King et al., 2006, Ryan & Deci, 2001). Supported by research on volunteering, experiences outside of work enable employees to enhance their meaning from work, but also substitute for lack of meaningfulness from their job (Grant, 2012; Rodell, 2013). Regardless of which of these two mechanisms (substitute vs. supplement) will operate with regards to hobbies, research suggest that voluntary activities outside of work enable employees to experience enhanced meaningfulness, which will generate additional resources and thus be enriching. That enrichment, in turn, will enable employees to have additional energy to direct towards other domains in their lives: "when individuals have a positive experience, they attempt to savor it and incorporate it into other domains of their lives to extend its impact" (Berg, Grant, et al., 2010, p. 992; Carlson, Charlin, & Miller, 1988, p. 19).

Relatedly, the nature of a hobby as a volitional activity, one that allows employees to choose which hobby, when, and how they pursue it, is pleasurable, empowering, and enhances motivational energy (Deci et al., 2001; Gagné & Deci, 2005). Engaging in volitional activities makes employees feel they have autonomy and control, which will increase their vitality and energy (Dutton et al., 2006). Additionally, the volition involved guarantees that the hobby will not become a stringent demand for employees and maintains it as a positive challenger for employees, which is also energizing (Siegrist, 1996). Although not every instance of hobby involvement is necessarily enjoyable, as hobbies can sometimes require an intense investment of

physical or mental effort (Stebbins, 1992), the hobby is pleasurable in a deeper sense because it enables employees to experience a sense of accomplishment, which generates meaningfulness (Baard, Deci, & Ryan, 2004; Crawford et al., 2010). To sum, the sense of volition, autonomy, and meaningfulness will be resource generating, which will make employees experience heightened energy (Crawford et al., 2010) and lead to feeling enriched.

Finally, the hobby allows employees to invest in themselves and provides an opportunity for them to have "me time", which is a key ingredient in feelings of enrichment (Deaton, 2008; Lowenstein, 2017). Moreover, being involved in an activity with which employees identify with, especially when that identity has strong positive connotations regarding who they are has strong enriching effects (Thoits, 1983), especially because the anticipation for the hobby involvement can, by itself, be energizing (Morgenstern, 2017).

As such, in alignment with role accumulation theory (Sieber, 1974), hobby involvement will be enriching.

Hypothesis 1: Greater hobby involvement will be positively associated with enrichment.

The sense of enrichment generated by the hobby will allow employees to expand those accumulated resources towards other domains in their lives, (Marks, 1977; Sieber, 1974), and will thus lead to beneficial consequences in those domains.

Among the beneficial consequences that have been examined in multiple domains research, two broad categories of outcomes have received the most research attention. First, research has dedicated attention to employees' performance outcomes (Rothbard, 2001). Second, research has examined the effects multiple domains have on employees' well-being (Rothbard, 2001). Therefore, I specifically examine the implications of hobby involvement for employees' performance and their well-being.

4.2.1 Enrichment and Job Performance

While hobby involvement will likely have performance implications for employees' performance at work as well as their performance at home, I only examine their performance implications at work, in order to be parsimonious. However, I expect similar effects for employees' performance in other life domains more generally.

One of the most important and relevant resources for job performance is energy, which is required for performing well at work. Specifically, being energized in an activity outside of work can provide employees with the required psychological resources to be more engaged and productive at their job (Sonnentag, Binnewies, & Mojza, 2008). The "charging" nature of hobby involvement will allow employees to be more concentrated at work (Kahn, 1990), as they will have additional required resources to perform better at work (Geurts & Sonnentag, 2006; Westman & Eden, 1997). The additional energy and resources to invest in job responsibilities, will allow employees to perform better and thus have increased job performance (Schaufeli, Salanova, González-romá, & Bakker, 2002). Thus, I hypothesize that hobby involvement will lead to heightened performance at work, through enrichment.

Hypothesis 2: Enrichment mediates the positive relationship between hobby involvement and job performance, such that there is a positive indirect effect between hobby involvement and job performance.

4.2.2 Enrichment and Well-Being

In line with role accumulation theory (Sieber, 1974), the enriching effect of the hobby domain will be targeted towards other domains in employees' lives and will generate beneficial consequences in those domains. Specifically, the additional energy employees will garner from their hobby can be directed to activities in other life domains, such as spending time with family or friends (Kahn, 1990; Schaufeli et al., 2002). Additionally, the nature of the hobby activity as an activity that is meaningful for employees has the capacity to generate joy, happiness, and greater positive affectivity, which will carry beneficial effects for employees' well-being (Sonnentag et al., 2008; Sonnentag & Zijlstra, 2006).

Research supports that notion that being involved in activities and experiences relate to greater life satisfaction and well-being, as opposed to spending resources (such as time and money) on materialistic short-lived pleasures (Kahneman & Deaton, 2013). The effect of experiences are especially pronounced because they affect well-being, both before and after the experience itself (e.g., increased life satisfaction, improved health, less stress, Erdogan, Bauer, & Truxillo, 2012). The anticipation for a pleasurable event has beneficial effects for well-being because anticipation for and planning of a pleasurable experience is exciting and enjoyable, since thoughts regarding future joy are joyful in their own right (Futrelle, 2017). For the latter, the delayed pleasure of

experiences post-occurrence stem from the way individuals recall experiences, and is sometimes referred to as "peak-end-rule" (Kahneman, Fredrickson, Schreiber, & Redelmeier, 1993). Individuals tend to enhance the positivity of experiences over time, while forgetting the less pleasurable moments (Redelmeier & Kahneman, 1996). Since people are more likely to recall experiences as more pleasurable than they were at the moment, positive experiences tend to be recalled in a much more positive light, and thus have a delayed impact on employees' well-being. As such, hobbies are likely to be beneficial for well-being as they provide anticipation for, and recollection regarding, the pleasure of hobby involvement (Erdogan, Bauer, & Truxillo, 2012).

Finally, the nature of the hobby activity as volitional, and the fact that employees can choose which hobby they pursue is pleasurable and empowering, and is an important precursor for well-being (Deci et al., 2001; Gagné & Deci, 2005). Overall, hobby involvement will lead to greater well-being, through enrichment.

Hypothesis 3: Enrichment mediates the positive relationship between hobby involvement and well-being, such that there is a positive indirect effect between hobby involvement and well-being.

4.3 The Daily Detrimental Effect of Hobbies

Whereas employees have more flexibility and less constraints on their global resources, they have limited flexibility and more constraints regarding how they spend their time and resources daily. Thus, whereas the overarching effect of hobbies is likely

to be enriching, daily hobby involvement is likely to deplete employees' resources and thus have subsequent detrimental effects.

Relying on role strain theory (Goode, 1960), involvement in multiple domains is depleting and thus may decrease employees' ability to function effectively across domains. Underlying this perspective is the notion that resources are finite (Becker, 1965; Marks, 1977; Sieber, 1974), and spending finite resources engaging in one activity takes away from the resources available for another activity. With regards to the workplace, this view suggests that domains outside of work divert energy away from work and take away time and energy that could have been otherwise spent at work. By so doing, domains outside of work deplete employees and decrease their ability to perform on the job (Greenhaus & Beutell, 1985; Lapierre, Hammer, Truxillo, & Murphy, 2012; Menges, Tussing, Wihler, & Grant, 2016). Applying role strain theory (Goode, 1960) to the hobby domain, greater hobby involvement will consume employees' resources, which will leave employees with fewer resources for to invest in other domains in their lives, which will lead to negative consequences in those domains.

The negative implications of multiple domains for employees have been examined by mechanisms such as resource drain (Edwards & Rothbard, 2000), role conflict (Greenhaus & Beutell, 1985; Merton, 1957), or depletion (Edwards & Rothbard, 2000). In alignment with the notion of resource depletion, I adopt the term "depletion" throughout this research to capture the decreased resource availability employees will encounter when they are engaged across multiple domains. I argue that depletion will be a cognitive one, such that employees will suffer from depletion in their cognitive resources.

Hobby involvement will be depleting daily since employees have greater limitation on their time and less flexibility and more constraints *daily*. Lack of resources, or resources constrains likely evoke depletion. Since one's daily resources are especially limited, when employees invests their finite resources, such as time (Becker, 1965), attention, and energy (Halbesleben et al., 2018), in the hobby domain, it will inevitably come on the expense of investing resources in another domain or task *that day* (Piotrkowski, 1979; Staines, 1980; Tenbrunsel, Brett, Maoz, Stroh, & Reilly, 1995). Thus, daily hobby involvement will be depleting because it consumes resources that will likely be needed for other daily activities, such as work, sleep, or family time – and thus will carry negative consequences for those domains.

Multiple domains specifically are likely to generate resource depletion since employees have competing demands from unrelated domains with established boundaries (Courtright, Gardner, Smith, Mccormick, & Colbert, 2016; Inzlicht & Schmeichel, 2012; Rothbard, 2001). The competing demands between the domains makes transitions between domains more costly than transitioning between tasks in the same domain because transitions between distinct domains require more cognitive effort than transitioning within a single domain, making it more likely that participation in unrelated domains will be resource depleting (Courtright et al., 2016). In particular, transitions between the three domains of hobby, family, and work are likely to be more depleting since these domains have established boundaries and are most commonly unrelated to one another and have distinct role responsibilities and expectations. Moreover, the hobby domain is the "third" domain employees have in their lives which requires them to "juggle" more in a single day, which will make transitions between domains more

frequent and thus more costly. Thus, transitions between domains are more likely to be depleting since the transition itself consumes resources as it requires effort in order to span tasks across the domains (Ashforth et al., 2000). Thus, daily hobby involvement will lead to daily depletion.

Hypothesis 4: Greater daily hobby involvement will be positively associated with daily depletion.

4.3.1. Depletion and Daily Job Performance

Daily depletion will lead to downstream negative consequences for other domains in employees' lives, since depletion will diminish employees' ability to effectively perform in other domains.

For once, the state of depletion may make employees lack energy that is necessary to successfully perform at work. This effect has otherwise been referred to as resource drain, and is described as the process by which resource allocation between domains occurs (Edwards & Rothbard, 2000). Resource allocation can be intentional, in which employees decide to invest resources in one domain on the expense of another, but can also be unintentional and not conscious and capture the process by which employees do not have resources left to invest in their work (Edwards & Rothbard, 2000). Whether employees make intentional resource allocation decisions or unintentionally have fewer resources for work, the effect of daily hobby involvement leading to depletion will mean that the hobby domain consumes resources such as energy and time, and those will be shifted to the hobby domain, on the expense of the work domain in that day. Thus, daily

depletion following hobby involvement will have detrimental effect for employees' daily job performance at work.

Hypothesis 5: Depletion mediates the negative relationship between daily hobby involvement and daily job performance, such that there is a negative indirect effect between daily hobby involvement and daily job performance.

4.3.2 Depletion and Daily Conflict between Domains

Involvement across domains also creates role conflict, where demands from one role make it difficult for employees to fulfil demands from another role (Greenhaus & Beutell, 1985; Rothbard & Edwards, 2003). As established in work-family research, multiple domains involvement can sometime create inter-role conflict (Allen, Herst, Bruck, & Sutton, 2000; Byron, 2005; Ernst Kossek & Ozeki, 1998; Mesmer-Magnus & Viswesvaran, 2005).

Conflict between domains can exist along different dimensions, and is most commonly discussed as potentially occurring along three lines (Edwards & Rothbard, 2000; Greenhaus & Beutell, 1985): (1) time-based conflict – can stem from being absent or mentally consumed with demands from another role. (2) Strain-based conflict – occurs when strain from one domain makes it difficult to meet demands of another domain. (3) Behavior-based conflict – occurs when behaviors developed in one domain are incompatible with role demands in another domain, and the individual is unable to adjust behavior when transferring between domains (sometimes is also considered to be a form of spillover; Edwards & Rothbard, 2000). Although these forms of conflict are

conceptually distinct, they nevertheless are often treated interchangeably (Edwards & Rothbard, 2001). Since I do not predict that hobbies will generate different types of conflict between employees' work and life, I consider all these forms of conflict to be equally likely, and suggest that they are all likely to occur in the intersection between hobby, work, and life.

Specifically, I predict that daily hobby involvement will be associated with hobby-work and hobby-life conflict because employees' depleted resources will prevent them from dedicating resources to their work or their life outside of their hobby.

With regards to conflict between one's hobby and their personal life, the state of depletion will make employees prioritize resource-restoring activities and they will be more likely to divert energy and attention inward, rather than outward, in an effort to restore their energy levels. This enhanced focus on oneself emerging from the state of decreased energy will leave employees with less ability to pay attention to others around them, which will make them less likely to notice another's suffering and to behave compassionately towards them (Kanov et al., 2004). Thus, they will be less likely to engage in critical behaviors that contribute to high quality interpersonal relationships, such as being empathetic and providing support to others (Deelstra et al., 2003; Ragins & Dutton, 2007). Employees' decreased ability to engage in these critical behaviors and to provide support to others will make conflict between their hobby and personal life more likely to emerge, as they will be less likely to notice, feel, and to respond appropriately to other's needs and wishes (Dutton, Workman, & Hardin, 2014; Dutton, Worline, Frost, & Lilius, 2006).

Additionally, logistical and practical elements of daily family life may also generate conflict stemming from depletion following hobby involvement. The depleted resources will leave the employee with less available time to dedicate time for domestic chores at home (e.g., cleaning, cooking, etc.), the majority of the domestic housework will fall on their significant other, which is one of the most conflict-inducing areas of family life (Byrne & Barling, 2017; Hochschild, 1997; Hochschild & Machung, 2012). Overall, both emotional and logistical reasons stemming from depleted resources will generate daily conflict between the hobby and one's personal life.

With regards to conflict emergence between hobby and work, research suggests that, for most people, work takes priority over hobbies (Sabrina, Perry, & Rubino, 2013; Stebbins, 2015). However, hobby involvement is nevertheless resource depleting daily, and since daily time and energy are limited (Becker, 1965; Gillespie et al., 2002), mere involvement may come on the expense of time and effort spent at work since employees will have less resources available for work. Additionally, employees are more likely to have more interruptions and distractions to their work from the hobby domain, which will also generate conflict (Parke et al., 2018). Thus, when employees are highly involved in their hobby on a single day, they are more likely to be depleted and to direct fewer resources towards their work and personal lives, which will increase conflict between these domains and the hobby domain.

Hypothesis 6: Depletion mediates the positive relationship between daily hobby involvement and (a) daily hobby-work conflict; and (b) daily hobby-life conflict, such that there is a positive indirect effect between daily hobby involvement and daily conflict between domains.

4.4 The Moderating Role of Hobbyholism

I adapt the term hobbyholism from the term "workaholism" (Spence & Robbins, 1992) and define hobbyholism as individuals' obsessive cognitive mentality towards their hobby. Because employees' cognitive mentality towards their hobby is different from their actual behavioral involvement in the hobby domain (i.e., hobby involvement), it is important to take into consideration the mutual impact of both hobby involvement and hobbyholism on employees. While employees' hobby involvement is akin to work hours, hobbyholism is akin to workaholism, as it represents obsessive cognitions, thoughts, or mentality towards one's hobby. Work hours and workaholism, which are distinct empirically and conceptually, as well as to have differential relationships with a host of outcomes (see Ten Brummelhuis, Rothbard, Uhrich, 2017). Thus, the mutual impact of these constructs in the hobby domain warrants investigation because focusing on only one of them may dilute behavioral hobby involvement from the mental cognitions towards a hobby. Additionally, obsessive dispositions and cognitions (e.g., workaholism, perfectionism) are generally related to a host of detrimental effects for employee's wellbeing, including relationships with stress, anxiety, burnout, depression, and sleep problems, among others (Andreassen, 2014; Harari, Swider, Steed, & Breidenthal, 2018). As such, it is important to examine employees' disposition towards their hobby because it is likely to affect the relationship between hobby involvement and its subsequent outcomes.

4.4.1 Conceptualizing Hobbyholism

Hobbyholism captures employees' cognitive mentality towards their hobby, and is following the term workaholism, which represents one's need to work incessantly (Oates, 1971). Workaholism is borrowed from the term "alcoholism," as it similarly represents an addiction to work. In a similar vein, hobbyholism represents individuals' obsessive cognitive mentality towards their hobby. As such, when individuals are high on hobbyholism, their inner drive to engage in the hobby resembles an addiction-like mentality towards their hobby (McMillan, O'Driscoll, & Burke, 2003). On the contrary, when individuals are low on hobbyholism, their cognitive mentality towards their hobby is not obsessive and does not stem from an addiction-like mentality or an urge towards the hobby. As is the case with workaholism, while hobbyholism may be related to other dispositional personality traits, such as perfectionism or Type A personality trait (Burke, 2000; Scott et al., 1997), it nevertheless represents a distinct motivational trait.

Drawing from research on workaholism, I conceptualize hobbyholism as a pattern of beliefs or cognitions (Robinson, 1996) that is context-specific and includes obsessive cognitions towards one's hobby. Although high levels of hobbyholism and hobby involvement may be correlated due to their potential mutual influence on one another, I suggest that they are separable empirically and conceptually (Ten Brummelhuis et al., 2017). As such, hobby involvement represents a *behavior* – one's level of involvement or time spent being involved in a hobby, whereas hobbyholism refers to a hobby *mentality* – the obsessive urge and mentality towards their hobby. While hobby involvement is more likely to be out of enjoyment or the pleasure of the activity, hobbyholism is more likely to be due to an inner obsession or fulfilling a need.

In alignment with other extreme cognitions (e.g., workaholism, perfectionism), I conceptualize hobbyholism as a trait, and as such it is relatively stable, although it may also be impacted by situational factors that may activate it to a greater or lesser extent (Tett & Guterman, 2000).

Overall, I propose that hobbyholism will have a differential moderating effect at the within and between-person levels. Between people, where hobby involvement will be less enriching for employees that are high on hobbyholism. However, at the withinperson level, hobbyholism will buffer against depletion, and hobby involvement will be less depleting for employees that are high on hobbyholism.

4.4.2 The Moderating Role of Hobbyholism at the Between-Person Level

When an employee is high on hobbyholism, they are more likely to obsess, feel guilty, and be preoccupied about their hobby even outside of the hobby domain. The obsessive thoughts and worries about the hobby will make individuals' involvement in the hobby less relaxed and more stressful, and the time spent participating in the hobby will be less pleasurable and less enjoyable for hobbyholistics, which will decrease the extent to which the hobby is enriching.

Additionally, the uncontrollable obsessive thoughts about the hobby that characterize hobbyholic employees makes them more likely to "see the glass half empty" and to think about their hobby while being involved in other domains of their lives. They are more likely to perceive that they are not involved in the hobby enough, and that they "should" engage in the hobby more often or frequently. These preoccupations, constant thouths, and frequent worries will thus make their hobby involvement less enriching.

Thus, at the between-person level, hobbyholism is likely to decrease the positive effect expected between hobby involvement and enrichment.

Hypothesis 7a: Hobbyholism will buffer the positive relationship between overall hobby involvement and enrichment, such that hobby involvement will be less enriching when employees are high on hobbyholism.

Hypothesis 7b: Hobbyholism will moderate the mediated relationship through enrichment between hobby involvement, (i) global job performance; and (ii) global well-being.

4.4.3 The Moderating Role of Hobbyholism at the Daily Level

The moderating effect of hobbyholism daily will buffer against the depleting daily effect of daily hobby involvement on depletion since hobbyholism will come to a momentary relief following hobby involvement. Put differently, hobby involvement will satisfy, albeit momentarily, the obsessive cognitions of the hobbyist, which will make daily hobby involvement less harmful for employees that are high on hobbyholism. Since individuals that are high on hobbyholism have a strong and irresistible drive to engage in their hobby, only hobby involvement will fulfil their obsessive thoughts regarding their hobby and thus relief them from their obsession, and thus will decrease the extent to which they feel depleted.

Additionally, hobbyholics will think about their hobby even when they are engaged in activities in other domains of their lives (both at work and at home), and that

obsession to engage in the hobby will be fulfilled by or relieved my hobby involvement. Thus, when hobbyholic employees are involved in their hobby, it will gratify their obsession and decrease the extent to which they experience depletion. Overall, at the within-person level, hobbyholism is likely to have a buffering effect on the relationship between hobby involvement and depletion.

Hypothesis 8a: Hobbyholism will buffer the negative relationship between daily hobby involvement and depletion, such that (a) daily hobby involvement will be less depleting when employees are high on hobbyholism.

Hypothesis 8b: Hobbyholism will moderate the indirect effect through depletion between daily hobby involvement and (i) daily job performance; (ii) daily hobbywork conflict; and (iii) daily hobby-family conflict.

CHAPTER 5 METHODS

This dissertation includes two studies that were intended to test the hypothesized framework. As such, studies 1 and 2 provide a comprehensive and rich examination of the effects of hobby involvement on employees and other domains in their lives as well as how key explanatory mechanisms and moderators drive these effects. Thus, they were designed to test both the between and within-person theoretical framework by examining both between and within-person hobby involvement, enrichment, depletion, and subsequent outcomes. Examining between-person hobby involvement will answer questions regarding the overall effects of hobby involvement on employees' global job performance and well-being, while examining within-person (daily) variation in hobby involvement on daily job performance and daily conflict.

5.1 Procedure, Sample, and Recruitment

Data collection in both studies lasted five weeks. The between-person component of Studies 1 and 2 includes three surveys sent to participants 1 week apart over the course of 2 weeks. Subsequently, the within-person part of Studies 1 and 2 lasted two weeks and consists of 2 daily surveys on the afternoon and evening for 10 workdays. Using three between level data collections, and two daily surveys helps to address common method variance concerns by temporally separating the focal measures of the study (Podsakoff, MacKenzie, & Podsakoff, 2012). Figure 2 describes the specific data collection procedure, measures collected in each survey, and the timelines for both studies.



FIGURE 2 Data Collection Timeline.

Working adults who are employed in a full-time position were recruited for these studies. Since the between-person study addresses people who are variably involved in a hobby, hobby involvement is not a requirement for participation in the study.

Working adults were recruited for these studies using two parallel methods: first, recruitment of participants using a research company allowed recruitment of participants who have variance in their hobby involvement, and is crucial for addressing the "between-person" research questions. Second, recruitment of participants from blogs, clubs, or boards that are dedicated to hobbies (such as Atlanta Track club or the Atlanta Chess club) provide variation in daily hobby involvement and will be important for addressing the "within-person" research question. These recruitment strategies as a whole allow accounting for both within- and between-person variation in hobby involvement. Recruiting participants from the general employed population as well as from a single hobby domain enables variation in both the independent variable as well as in participant's jobs and demographics. Using employees from a wide range of hobbies, occupations, and jobs increases the generalizability of the results of this study.

All data was collected via online surveys hosted by Qualtrics.com.

5.1.1 Power Analysis

In order to determine the appropriate sample size for Studies 1 and 2, I conducted power analysis using the Optimal Design (OD) Plus software package.

For this analysis, I set $\alpha = .05$, and utilized a cluster-randomized trial with repeated measures designs to explore the appropriate cluster size (i.e., number of participants at Level-2) and n (i.e., number of observations at Level-1, assuming 2 samples a day for 10 days, n = 20 within-person observations). The OD package creates a

curve with the given inputs (alpha, frequency of measurement, desired power, effect size, ICC values and variances at level-1 and level-2). In considering the feasibility of data collection and the need for collecting data at 2 time points, I aimed to obtain a power of 0.80. Further, in following recent meta-analytic work by Bosco, Aguinis, Singh, Field, & Pierce (2015), who examined effect sizes in applied psychology studies, I utilized estimated effect sizes of .16 and .26 which represented the overall median (e.g., not context-specific) of the 50th percentile effect size (a medium effect and the upper bound of the range of values that constitute a medium effect). Further, this value was converted to a Cohen's d statistic for input into the Optimal Design Program (Cohen D's = 0.5). I further utilized a range of ICC values (.1, .3, .5), which would indicate that 90%, 70%, or 50% of the observed variance is within-person. This is consistent with extant research in which ICC values on a variety of variables in applied psychology measured weekly and semi-weekly that were in this range (e.g., Stewart & Nandkeolyar, 2006, 2007; Liu, Wang, Liao, & Shi, 2014). Results of this analysis yielded a range of sample sizes for generating power of .80, depending on the effect size, frequency of measurements, and ICC value utilized, with the top of the range being 102 participants (10 day-level measurement, ICC .5, effect size .16), and bottom being 64 participants (10 day-level measurement, ICC .1, effect size .26). To be conservative, I chose to utilize the curve for the highest ICC (.5), and the mean of .16 and .26 (.21), which indicated ~80 participants (at level-2) are necessary to achieve a power of .80 to detect these effects.

As such, I aimed recruiting 120 - 150 participants as an initial stage for Study 1 and Study 2, given that: (1) approximately 80% response rate is required from each one

of the participants in order to be able to analyze the daily within-person observations; and (2) to account for potential attrition.

5.2 Analytical Procedures

Data from the between and within-person frameworks are analyzed in separate analyses.

The between-person framework is tested first using a single-level, regressionbased path analysis with maximum likelihood estimator in Mplus 7.2 (Muthén & Muthén, 1998-2018). Next, a series of path analytic models in Mplus are employed to test the hypotheses because the theoretical model includes multiple dependent variables, and since the PROCESS macro in SPSS allows only a single outcome at a time. I use Maximum Likelihood estimation in model testing, and center variables when examining the mediation and mediation-moderation framework. Also, the direct effect from hobby involvement to outcomes are included in accordance with mediation and moderatedmediation guidelines (Preacher & Hayes, 2004, 2008), and residuals among the dependent variables are allowed to correlate. The mediation and moderatedmediation Hypotheses 2, 3) are tested using a bootstrap approach with 10,000 samples to construct 95% bias-corrected confidence intervals around the indirect effects and conditional indirect effects (Preacher & Hayes, 2008).

The within-person study utilizes a nested design (multiple days nested within employees). The multilevel path analysis is appropriate for testing this framework since it allows a parallel examination of all dependent variables, allows modeling covariance between variables, and is appropriate for mediation and mediation-moderation in multilevel models (Bauer, Preacher, & Gil, 2006; Kenny, Korchmaros, & Bolger, 2003).

Hence, I employ a multilevel path analysis using Mplus to test the within-person Hypotheses. The between-person cross level moderators (hobbyholism) is modeled at level 2. The within-person dependent variables (job performance, conflict) are modeled at level 1 using random slopes. The disturbances between the dependent variables are allowed to covary (Kline, 2015). The control variables (day, sleep quality, and sleep duration) will be modeled with fixed slopes (Wang et al., 2013; Wang, Liao, Zhan, & Shi, 2011). In accordance with Enders and Tofighi (2007), all within-person predictors and mediators are group-mean centered (Enders & Tofighi, 2007), which allows the investigation of the within-person daily variance by controlling for between-person effects. Level-2 variables are grand-mean centered, and simple slope for testing of moderation is conducted to test significant moderation effects. The moderation of hobbyholism at the within-person level is tested by modeling it as a cross-level main effect on the mediator (e.g., depletion), in addition to its influence of the strength of the relationship between the independent variable and the mediators (Cohen, Cohen, West, & Aiken, 2003).

In order to test the significance of the mediation Hypotheses (Hypotheses 5 and 6), I utilize parametric bootstrapping procedure (Preacher, Zyphur, & Zhang, 2010; Selig & Preacher, 2008). The strength of the indirect effect is calculated, and confidence intervals around the estimated indirect effects are built using Monte Carlo simulation with 20,000 replications (Bauer, Preacher, & Gil, 2006). Recent published work has estimated multilevel moderated - mediation with similar methodological procedures (da Motta Veiga & Gabriel, 2016; Koopman et al., 2016; Lanaj, Johnson, & Barnes, 2014).

5.2.1 Handling Missing Data

Missing data is likely and expected in ESM studies since participants typically do not respond to all of the daily surveys. As recommended in the Mplus user guide (Muthén & Muthén, 2010), the default for handling missing data varies depending on the type of estimator that is used in the model where a different estimator is preferable per each specific model. Mplus does not impute values for those that are missing. Rather, it uses all the available data to estimate the model using full information maximum likelihood and each parameter is estimated directly (without filling in missing data values for each observation separately beforehand).

Specifically in the within-person analysis, it is recommended that there are at least three days in which the same person filled out all surveys of the day. Three full days in necessary to model within-person relationships, since one day is not enough for "withinperson", and two days will result in a perfect correlation with no statistical error (Singer & Willet, 2003). As such, I exclude from all within-person analyses participants who did not fill out at least three days of both afternoon and evening surveys.

5.3 Study 1

5.3.1 Procedure and Sample

Participants for this study were recruited using mTurk following the similar procedures in studies that were recently published in top-level journals (Sherf, Venkataramani, & Gajendran, 2018). mTurk has been used to study employees' behavior with comparable results to those obtained from survey or lab research (e.g., Akinola, Martin, & Phillips, 2017; Johnson et al., 2017) and has shown to be a reliable source of data (Buhrmester, Kwang, & Gosling, 2011; Paolacci & Chandler, 2014). Specifically, data for this research were obtained using Turk Prime, an online platform that uses mTurk participants but allows greater control on participants' identity and employment status, and thus ensures higher-quality responses. The platform also allows collecting longitudinal data at multiple time points using the same sample.

5.3.1.1 Between-Person Procedure and Sample

Between-person data was collected in three separate surveys over the course of three weeks. The first between-person survey contained measures of the between-person independent variables and moderators (i.e., hobby involvement and hobbyholism). The second survey assesses the mediating mechanism (i.e., enrichment), and was sent to participants one week after the initial survey. Finally, the third between-person survey was sent out a week after the second survey, on a Thursday, and the first within-person survey was sent out the following Monday.

In addition to the main variables of interest in my theoretical framework, I also collected several other variables that are potentially important. According to Spector and Brannick (2011), control variables should be modeled in analyses if there is a reasonable theoretical rationale for their inclusion. Thus, I collected several theoretically relevant measures in order to control for alternative potential mechanisms and moderators. These between-person control variables were collected in the Time 1 survey. Guided by previous research on recovery experiences (Sonnentag et al., 2008) and multiple domains research (Rothbard, 2000), I collected demographic variables (i.e., age, gender, race, educational status), and personality traits (i.e., trait affect). Additionally, the hobby, job, and personal life characteristics may also affect the relationships proposed, and thus I asked participants regarding their hobby's characteristics (hobby type, hobby frequency,

time spent on hobby activities on average), job characteristics (occupation, role, job title, job tenure, and job autonomy), and personal life characteristics (marital status and number of children living in the household).

Participants had to work full-time (more than 35 hours per week) and be at least 18 years of age to be eligible for participation. There were two attention check questions embedded in each survey, and I excluded participants who failed any of these attention checks. Due to the nature of mTurk and the ease of taking a survey multiple times, I also excluded participants based on non-unique IP Address, gibberish responses, "straightlining" the full survey, and those who responded to questions in less than 2 seconds per question on average.

Out of 388 responses that were recorded for the Time 1 survey, 154 were excluded, yielding a 39.7% exclusion rate. This relatively high exclusion rate was consistent with the exclusion rate in Time 2 and 3 surveys (Time 2: 233 responses, 60 excluded, 25.8%; Time 3: 220 responses, 68 excluded, 44.7%).

These participants were excluded from the remainder of the analysis and resulted in a total of 234 participants who completed the Time 1 survey, 173 participants who completed the Time 2 survey, and 152 participants who completed the Time 3 survey, for a 64.9% completion rate.

This sample was 56.8% male, with an average age of 36.03 years (ranges from 20 to 71, SD = 10.23). The sample was largely white (70.3%), 10.8% were African-American, 8.6% were Asian/Pacific, 6.5% were Hispanic/Latino, and 0.4% were Native American. 42.3% of the sample were married and the educational background was diverse, such that 15.4% of the sample had an associate's degree and 53.5% of the sample

had a bachelor's degree or higher. Participants worked in various occupations such as accountant, attorney, biochemist, cashier, carpenter, teacher, cook, and nurse, among others. Participants also had various hobbies, such as video gaming, running, kayaking, swimming, DIY home projects, and playing musical instruments.

5.3.1.2 Within-Person Procedure and Sample

During the daily portion of the surveys, participants received 2 sets of surveys every day, while they are at work, for 10 consecutive workdays. Because the research question addresses behavior, well-being, and performance during employee's workday, participants needed to complete both daily surveys to consist of a single within-person data point (e.g., each day represents a single within-person observation). The data collection period lasted 2 weeks in order to allow participants to compensate for missing daily surveys (in case they missed daily surveys). Participants were incentivized to complete the full set of daily survey (e.g., all 2 surveys in a single day for all days) by providing a bonus payment for those who completed more than 90% of all daily surveys (see Koopman et al., 2016 for a similar data collection strategy).

Data was collected two times a day: in the afternoon and the end of the workday. The first survey, sent around lunchtime, asked participants to report hobby involvement in the past 24 hours using the Day Reconstruction Method (DRM; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). This is the best method to capture hobby involvement since it allows researchers to account for the possibility that hobby involvement occur at any time point during the day. In the same survey, participants were asked to report their depletion, as well as control variables (as described in the measurement section). Although this data collection method asks participants to report the independent and

mediator variables in the same time point, participants were asked to recall an activity (and not an affective state or an attitude), thus common method bias in their responses is less of a concern when using DRM. Finally, the evening survey asks participants to report their job performance and conflict between domains. Assessing the theoretical framework using two data points in a sequential order where the measurement points are separated by time of the day allows for partially establishing causality and mitigates common method bias concerns (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Since instances of hobby involvement may also occur during the weekend, and yet there are typically no significant work outcomes during the weekend (or if performance episodes occur they are likely to be more scarce), participants respond to questions regarding their hobby involvement in Saturday and Sunday in the Monday survey.

Participants who completed all between-person surveys were eligible to participate in the within-person study and were emailed 2 daily survey in the afternoon and evening of 10 consecutive workdays. The afternoon survey was sent at 12pm of participant's local time zone and participants could complete it until 2pm. The second survey was sent daily at 6pm (of participant's local time) and they could complete it until 8pm. Participants were paid for each completed survey and were eligible for rewards based on the number of surveys they completed. Data for those who completed both daily surveys for at least three days were utilized (Bolger & Laurenceau, 2013; Singer & Willet, 2003). The final sample included 55 participants who provided 373 day-level points.

5.3.2 Measurement

The measurement timeline (when each scale was administered) is described in Figure 2. The specific scales used in the between and within-person surveys are described below. Unless otherwise indicated, items were ranked on a 7-point Likert scale ranging from 1 = "strongly disagree," to 7 = "strongly agree." Reliabilities were calculated for each scale and are described in parenthesis for the between-person measures. Coefficient alpha for the within-person scales were averaged across days per person and represent estimated within-person reliability.

5.3.2.1 Between-Person Measures

Hobby involvement. Since this hobby involvement scale represents a betweenperson measure and is not the aggregation of daily hobby involvement, it is measured in the initial between-person survey. In correspondence with other volitional activities (e.g., volunteering; Rodell, 2013) participation in hobbies can be conceptualized according to the level of involvement in the hobby activity (Latham & Pinder, 2005; Mitchell & Daniels, 2003) and similarly represents the behavioral intensity of an individual in their hobby. Thus, items are adapted from the volunteering scale, which assesses the level of intensity of volunteering (Rodell, 2013). Participants were asked to report their involvement in a hobby, where the word "hobby" was changed to indicate the specific hobby of an individual: "I often engage in a hobby activity," "I devote my energy towards a hobby," "I give a lot of my time towards a hobby activity," and "I apply my skills towards hobby involvement," from 1 = "I almost never engage in these activities," to 7 = "I engaged in these activities in the last 24 hours" ($\alpha = .93$). *Hobbyholism*. As a between-person moderator, hobbyholism was assessed in the initial between-person survey. Drawing on workaholism research, workaholism has been most commonly conceptualized along two dimensions: (1) working excessively – the amount of work that exceeds what is needed or expected from the employee in the social context of their work; and (2) working compulsively – employees' irresistible inner drive to work and their preoccupation with work (Taris, Schaufeli, & Verhoeven, 2005). For example, when an employee is highly workaholic, they work excessively, have a strong and irresistible drive to work, find it hard to detach from work, and feel guilty when not working (Schaufeli et al., 2008). Since hobby involvement is voluntary and excessively engaging in a hobby is nonsensical, I conceptualize hobbyholism as one's obsessive cognitive mentality towards their hobby.

The measure for hobbyholism is adapted from the work addiction scale (Ten Bruhlis, 2010; Taris et al., 2005). In line with my definition of hobbyholism, this scale include the single dimension of excess cognitive mentality towards the hobby domain. Items include: "I feel guilty when I am not practicing my hobby," "I feel that there is something inside me that drives me to be very involved in my hobby," and "I put myself under pressure with self-imposed deadlines when I practice my hobby" ($\alpha = .72$).

Enrichment. Enrichment between two domains is defined as "the extent to which experiences in one role improve the quality of life in the other role" (Greenhaus & Powell, 2006, p. 72). I conceptualize enrichment as the experience of having resources or as a state of resource abundance that can be dedicated to an activity or a task. This scale was adapted from May et al., (2004) and from Byrne and colleagues (Byrne, Peters, & Weston, 2016, p. 1227). Participants rate the extent to which they typically have

resources. Items were ranked on a 7-point Likert scale ranging from 1 = "strongly disagree," to 7 = "strongly agree." Items include: "most often, I am ready to deal with the demand I have," "I am mostly free to concentrate on anything," "I almost always feel ready to handle anything," and "I always have the resources needed to invest myself in any task" ($\alpha = .88$).

Depletion. Whereas the relationship between depletion and enrichment has been most commonly examined in separate studies, Greenhouse and Powell (2006) summarize the relationship between depletion and enrichment and provide evidence that their between-person correlations are generally small and thus these constructs are independent (Greenhaus & Powell, 2006, p. 76). However, there are some commonalities between enrichment and depletion that hint at the notion that high depletion can be viewed as low enrichment (Greenhaus & Powell, 2006), which makes it necessary to also capture depletion in this survey as this provides an alternative explanation for the mediating mechanism proposed. I adapted this scale from previous research (Ciarocco et al., 2010; Courtright et al., 2016; Welsh & Ordóñez, 2014) and participants rate the extent to which they typically experience depletion using the following items: "I often feel mentally exhausted," "I often feel that I have little or no energy," "I am drained from energy quite often," and "I often feel depleted" ($\alpha = .96$).

Job performance. Job performance is typically conceptualized as an employee's overall performance at work, and is the composition of the employee's task performance, extra-role behavior, and counterproductive behavior. Thus, in this study I assess employee's task performance and extra-role behavior. Participants were asked to indicate their agreement with four statements regarding their task performance and extra-role

behavior at work on a seven-point scale (from 1 = "strongly disagree," to 7 = "strongly agree"), using the Williams and Anderson (1991) scale. An example statement for the task performance construct: "at work, I engage in activities that directly affect my performance." An example statement for the extra-role behavior construct: "at work, I try to help people I work with" (task performance $\alpha = .85$; extra-role behavior $\alpha = .81$).

Well-being. Psychological well-being is a multidimensional construct (Ryff & Keyes, 1995) that has implications for employee's health, productivity, and turnover (Danna & Griffin, 1999). Well-being is often viewed as a broad phenomenon (Danna & Griffin, 1999; Diener, Suh, Lucas, & Smith, 1999), one that includes variables that are an indication of employees' well-being at work (for meta-analyses, see Halbesleben, 2006; Judge, Thoresen, Bono, & Patton, 2001; Lee & Ashforth, 1996; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Since well-being captures a wide variety of related constructs, and has been measured in many ways (Koopman, Lanaj, & Scott, 2016), I chose the measure that best captures the essence of my theorizing by capturing participants' evaluations of their general happiness, satisfaction, and fulfillment with life. Thus, I use items of the life satisfaction scale (Diener et al., 1999). Participants ranked the extent to which they agree or disagree with the following statements (from "1" = strongly disagree, to "7" = strongly agree): "In most ways, my life is close to ideas," "The conditions of my life are excellent," and "I am satisfied with my life" ($\alpha = .95$).

5.3.2.2 Within-Person Measures

Hobby involvement. Hobby involvement is measured in the first daily survey using two parallel methods. First, by assessing the duration of time an employee spent involved in their hobby: "how much time did you spend being involved in your hobby or

in an activity related to your hobby?" and this question was asked regarding *today* and *yesterday*.

Second, participants were asked to report the exact duration, starting time, and ending time of their hobby involvement activities today and yesterday following the Day Reconstruction Method (Kahneman et al., 2004).

Daily depletion. As a within-person mediator, depletion was measured daily in the afternoon survey. Depletion is conceptualized as a state of low levels of resources, or lack of resources that are required to perform an activity or a task. The same between-person scale (Ciarocco et al., 2010; Courtright et al., 2016; Welsh & Ordóñez, 2014) was used and adapted to represent momentary depletion. Items include: "At the moment, I feel mentally exhausted," "at the moment, my energy is running low," "right now, I feel drained from energy," and "right now, I feel depleted" (estimated within-person reliability = .97).

Daily enrichment. Capturing enrichment is important as this can provide an alternative mediating mechanism to depleting. Items were measured on a 7-point Likert scale (from 1 = "strongly disagree," to 7 = "strongly agree"): "Right now, I have the resources to invest myself in any task," "I feel ready to deal with the demands I have at the moment," "At the moment, I am able to concentrate," and "right now, I feel ready to handle anything" (estimated within-person reliability = .92).

Job performance. Similarly to the between-person survey, I assess employees' daily job performance by assessing daily task performance and extra-role behavior. These scales were adapted and shortened for the purpose of the daily survey. Daily task performance was assessed using the in-role performance measure developed by Williams

and Anderson (1991). Participants were asked to report their agreement with 4 statements regarding their task performance during that day along a seven-point scale, from 1 = "strongly disagree," to 7 = "strongly agree". The original scale had 7 items, and I use the 4 items that had the highest loading in the original manuscript. The items are: "I have performed the tasks expected of me", "I adequately completed my duties for the day", "I fulfilled my responsibilities as specified in my job description", and "I met the formal performance requirements of my job" (estimated within-person reliability = .76).

Participants' daily extra-role behavior were measured using a shorter version of the scale developed by Dalal et al., (2009). Participants were asked to indicate their agreement with four statements about behaviors they had engaged in at work that day (from 1 = "strongly disagree," to 7 = "strongly agree"). The original scale had 8 items and I chose the items that best capture the voluntary and non-mandatory components of one's work role (Bolino & Grant, 2016). Items were: "today, I went out of my way to be nice to someone I work with," "today, I tried to help someone I work with," "today, I volunteered to do something that was not required at work," and "today, I showed genuine concern for others at work" (estimated within-person reliability = .81).

Hobby-work conflict. Participants rate the extent to which they agree or disagree with the following statement regarding their experiences at work today (from 1 = "strongly disagree," to 7 = "strongly agree") about the extent to which they experienced conflict in their work because of their hobby involvement. The scale includes 5 items adapted from the family-work scales developed and used by Graves (2007), Judge (2004), and Netenmeyer (1996). Items include: "today, I was less effective at work because of my hobby," "today, I was preoccupied about my hobby while I was at work,"
"today, my hobby kept me from getting work done on time at my job," "today, I sacrificed work in favor of my hobby," "today, my hobby took away time that would have otherwise been spent at work" (estimated within-person reliability = .90).

Sleep. Previous research establishes the importance of sleep for people's depletion, performance, and well-being (Barnes, Wagner, & Ghumman, 2012). Thus, sleep duration and sleep quality was assessed in the afternoon survey as control variables. Sleep duration was assessed by asking participants: "how much time did you sleep last night?" (Sonnentag et al., 2008). Sleep quality was assessed using a single item derived from the Pittsburgh Sleep Quality Index (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989): "How would you evaluate the quality of last night's sleep, relative to your average night sleep?" (0 = "very poor", 5 = "average", 10 = "exceptional").

5.3.3 Between-Person: Results and Discussion

Descriptive statistics and correlations among the between-person variables are provided in Table 1. A CFA indicated that the three-factor model (i.e., hobby involvement, enrichment, and depletion) demonstrated excellent fit to the data (χ^2 (62) = 102.86; TLI = .98; CFI = .98; SRMR = .03; RMSEA = .06, 90% CI [.04, .08]). Wald tests showed that constraining the correlations to 1 among (a) hobby involvement and enrichment (χ^2 (1) = 102.67, $p \le .01$), (b) hobby involvement and depletion (χ^2 (1) = 198.55, $p \le .01$), (c) enrichment and depletion (χ^2 (1) = 924.84, $p \le .01$), all led to significantly worse fit than the theorized model.

I started by examining the regression results using a single-level, regression-based path analysis with maximum likelihood estimator in Mplus 7.2 (see Table 2). First, I examined the relationship between hobby involvement and enrichment for Hypothesis 1. Path analytic results showed that hobby involvement predicted enrichment (B = .29, $p \le$.001; Table 2, Model 1), providing support for Hypothesis 1.

FABLE 1	
Study 1 (Between-Person). Descriptive Statistics and Correlations among Study Variable	s.

Variable		M	SD	1	2	3	4	5
1	Hobby Involvement (S1)	5.78	1.03					
2	Enrichment (S2)	5.55	0.94	.23**				
3	Depletion (S2)	3.24	1.70	02	56**			
4	Task Performance (S3)	6.33	0.74	.13	.40**	17**		
5	Extra-Role Behavior (S3)	5.52	1.03	.06	.32**	23**	.42**	
6	Well-Being (S3)	4.77	1.65	24**	.61**	48**	.15	.25**

Note. S1 = measure collected at survey 1; S2 = measure collected at survey 2; S3 = measure collected at survey 3. N (S1) = 234; N (S2) = 173; N (S3) = 156. * $p \le 0.05$; ** $p \le 0.01$.

	Enric	hment	Task Performance			Ex	tra-Role Beha	vior	Well	-Being	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
	В	В	В	В	В	В	В	В	В	В	В
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)
Intercept	07	07	6.31**	6.29**	.39**	5.51**	5.50**	.94**	4.71**	4.73**	1.59**
	(.07)	(.07)	(.06)	(.06)	(.05)	(.08)	(.08)	(.11)	(.13)	(.13)	(.19)
Hobby Involvement	.29**	.29**	.10	.12*	.03	.06	.06	03	.37**	.36**	03
	(.07)	(.07)	(.06)	(.06)	(.06)	(.08)	(.09)	(.09)	(.13)	(.13)	(.12)
Hobbyholism	19**	19**	15*	19**	13	18*	18*	12	34*	31*	10
	(.07)	(.07)	(.06)	(.06)	(.06)	(.09)	(.09)	(.09)	(.14)	(.14)	(.12)
Hobby Involvement		.00		.15*	.15		.01	.01		08	09
XHobbyholism		(.07)		(.06)	(.06)		(.09)	(.09)		(.14)	(.12)
Enrichment					.32**			.33**			1.11**
					(.06)			(.10)			(.12)
R ²	.12*	.12*	.05	.12*	.27**	0.03	.12**	.12*	0.08	0.08	.44**

TABLE 2 Study 1 (Between-Person). Regression Analysis of Enrichment, Task Performance, Extra-Role Behavior, and Well-Being.

Note. N = 234. Table entries represent unstandardized parameter estimates with standard errors. All variables (aside from the dependent variables) were mean centered. $*p \le .05$, $**p \le .01$.

Next, I ran a series of path analytic models in Mplus 7.2 (Muthén & Muthén, 1998-2018) to test my hypotheses. I used Maximum Likelihood estimation in model testing, and centered variables when examining the mediation and mediation-moderation framework (hobby involvement and enrichment). Also, the direct effect from hobby involvement to outcomes was included in accordance with mediation and moderatedmediation guidelines (Preacher & Hayes, 2004, 2008), and residuals among the outcomes variables were allowed to correlate. The mediation and moderatedmediation Hypotheses 2, 3, 5, and 6) were tested using a bootstrap approach with 20,000 samples to construct 95% bias-corrected confidence intervals around the indirect effects and conditional indirect effects (Preacher & Hayes, 2008).

As shown in Table 3 and depicted in Figure 3, enrichment mediated some relationships between hobby involvement and the outcomes. Specifically, hobby involvement has a significant positive indirect effect on task performance (.10; 95% CI [.04, .18]), but the indirect effect with extra-role behavior is not significant (.00; 95% CI [-.10, .07]). Moreover, in support with Hypothesis 3, enrichment mediated the relationship between hobby involvement and well-being, such that hobby involvement had a significant positive indirect effect on well-being (.25; 95% CI [.10, .44]). These results provide support for Hypotheses 3 and partial support for Hypothesis 2. Next, I tested the same model with depletion as an alternative mediator. Providing evidence for the framework and the notion that enrichment and depletion are not mere opposites, depletion did not mediate the relationship between hobby involvement and task performance (.00; 95% CI [-.03, .01]), extra-role behavior (.00; 95% CI [-.02, .05]), or well-being (.01; 95% CI [-.04, .09]).

TABLE 3	
Study 1 (Between-Person). Path Anal	ysis Results for Indirect Effects.

		Task Performance			Extra-Role			Well-Being		
Mediator	Independent Variable/s	Estimate	Boot SE	95% CI	Estimate	Boot SE	95% CI	Estimate	Boot SE	95% CI
Via Enrichment	Hobby Involvement	0.10**	0.04	[0.04, 0.18]	-0.00	0.04	[-0.10, 0.07]	0.25**	0.09	[0.10, 0.44]
	Hobby Involvement X Hobbyholism	-0.01	0.03	[-0.07, 0.04]	0.00	0.01	[-0.02, 0.04]	-0.03	0.07	[-0.19, 0.10]
Via Depletion	Hobby Involvement	-0.00	0.01	[-0.03, 0.01]	0.00	0.01	[-0.02, 0.05]	0.01	0.03	[-0.04, 0.09]
	Hobby Involvement X Hobbyholism	0.02	0.02	[-0.01, 0.07]	-0.02	0.03	[-0.11, 0.02]	-0.07	0.05	[-0.19, 0.00]

Note: N = 152; The model was tested concurrently in Mplus (i.e., all the dependent variables in the same model). $*p \le 0.05$; $**p \le 0.01$.



Indirect Bootstrap Estimates via Enrichment
Task Performance = .10**, 95% CI [0.04, 0.18]
Extra-Role Behavior =00, 95% CI [-0.10, 0.07]
Well-Being = .25**, 95% CI [0.10, 0.44]

FIGURE 3

Study 1 (Between-Person). Results of Path Analysis of Indirect Effects via Enrichment. *Note*: N = 152; The model was tested with all outcomes concurrently in Mplus. * $p \le 0.05$; ** $p \le 0.01$.

5.3.3.1 The Moderation of Hobbyholism

I started by examining the moderation of hobbyholism using regression (see Table 2). First, I examined the relationship between hobbyholism on enrichment. Path analytic results showed that Hobbyholism was negatively related to enrichment (B = -.19, $p \le .05$; Table 2, Model 1). Next, I tested Hypothesis 7a by examining the interaction between hobby involvement and hobbyholism on enrichment. Results show that the interaction of hobby involvement and hobby hism was not significantly related to enrichment (B = .00, p = .95; Table 2, Model 2), thus no support was found for Hypothesis 7a, although the direct effect with enrichment was negative (B = -.19, $p \le .05$; Table 2, Model 2). Next, I used the same bias-corrected bootstrapping procedure detailed previously to examine Hypothesis 7b of the moderated indirect effects of hobbyholism (Edwards & Lambert, 2007). As detailed in Table 3, hobbyholism was not a significant moderator, such that hobbyholism did not moderate the indirect effect between hobby involvement and the outcomes through enrichment. Specifically, the conditional indirect path through enrichment was not significant for task performance (-.01; 95% CI [-.07, .04]), extra-role behavior (.00; 95% CI [-.02, .04]), or well-being (-.03; 95% CI [-.19, .10]). Hence, there was no support for Hypotheses 7b.

These results of Study 1 support the enriching effects of hobby involvement overall as hobby involvement was found to be positively related to enrichment, and enrichment mediated the relationship between hobby involvement, task performance, and well-being (but not extra-role behavior). Moreover, the results demonstrate that while enrichment and depletion are highly correlated ($\rho = -.56$, $p \le .01$), hobby involvement leads to greater enrichment but not to lower depletion and depletion does not mediate the

relationship between hobby involvement and these outcomes. However, with regards to the moderation of hobbyholism, the results do not support hobbyholism as a moderator in this mediated framework.

5.3.4 Within-Person: Results and Discussion

Because the within-person data were nested (measurements nested within participants), I analyzed the data using multilevel modeling methods (MLM). Table 4 displays the proportion of within- and between-person variance in level 1 variables. Daily variables exhibited significant within-person variance (ranging from 30.65% to 73.01%), thereby justifying the use of within-person analysis as within-person variability accounted for substantial total variance in each construct. Table 5 displays descriptive statistics and correlations among the within-person variables, including hobbyholism as a cross-level moderator.

TABLE 4 Study 1 (Within-Person). Percentage of Within-Person Variance among Daily Variables.

Construct	Within- Person Variance ^a	Between- Person Variance ^b	% of Within- Person Variance
Hobby Involvement (Yesterday)			
(AF)	1.65	0.61	73.01%
Hobby Involvement (Today) (AF)	0.07	0.03	70.00%
Depletion (AF)	1.41	0.91	60.78%
Enrichment (AF)	0.72	0.73	49.66%
Task Performance (EV)	0.19	0.43	30.65%
Extra-Role Behavior (EV)	0.69	1.20	36.51%
Well-Being (EV)	0.29	0.22	56.86%
Hobby-Work Conflict (EV)	0.42	0.53	44.21%

Note. ${}^{a}\sigma^{2}$; ${}^{b}\tau_{00}$. % of total variance that is within-person was computed using the formula: $\sigma^{2} / (\sigma^{2} + \tau_{00})$. AF = measure completed during the midday survey; EV = measure completed during the evening survey.

V	ariable	M	SD	1	2	3	4	5	6
L	evel 1 Variables								
1	Hobby Involvement	0.16	0.63						
2	Depletion	2.69	1.53	09*					
3	Enrichment	5.45	1.20	.03	74**				
4	Task Performance	6.12	0.76	06	14**	.25**			
5	Extra-Role Behavior	4.75	1.36	07	05	.10	.25**		
6	Hobby-Work Conflict	1.77	0.95	.19**	.18**	14**	17**	01	
L	evel 2 Variables								
7	Hobbyholism	3.07	0.85	.09	.24	.06	04	.15	08

 TABLE 5

 Study 1 (Within-Person). Descriptive Statistics and Correlations among Study

 Variables.

Note. Level-1 (day-level) $422 \le N \le 533$; Level-2 (person-level) N = 55. Correlations for within-person (Level-1) variables reflect within-person centered relationships. ICC(1) is the % of total variance that is within-person and was computed using the formula $\sigma^2 / (\sigma^2 + \tau_{00})$. * $p \le 0.05$; ** $p \le 0.01$.

I tested the theoretical model using a multilevel path analysis model in MPlus 7.2 (Muthen & Muthen, 1998–2018). The between-person cross level moderator (hobbyholism) was modeled at level 2 and was grand-mean centered. The within-person variables (hobby involvement, depletion, enrichment, task performance, extra-role behavior, hobby-work conflict, and hobby-life conflict) were modeled at level 1 using random slopes. To examine the variations within-person and to control for confounds at the between-person level, these variables were group mean centered using each person's variables means (Hofman, Griffin, & Gavin, 2000). Similar to recently published research in top-tier journals (Johnson et al., 2014; Koopman, Lanaj, & Scott, 2015; Sherf et al., 2018), I tested the mediation hypothesis using parametric bootstrapping procedures

(Preacher & Selig, 2010; Preacher, Zyphur, & Zhang, 2010) to estimate and test the significance of the indirect effects hypothesized. Finally, I followed procedures by Aiken and West (1991) to test ad interpret interactions.

I controlled for the day of data collection in all the analyses (cf., Bolger & Laurenceau, 2013) due to its importance in daily ESM research (Gabriel et al., 2018). I also controlled for sleep quality and sleep duration due to their theoretical importance for hobby involvement and daily depletion. However, the inclusion of these control variables did not change the pattern or significance of the results. Thus, I report the results without these controls for parsimony.

I started by testing the relationship between daily hobby involvement and daily depletion described in Hypothesis 4. I did not find support for Hypothesis 4, as the relationship between daily hobby involvement and daily depletion was significant but in the opposite direction than hypothesized ($\gamma = -.45$, $p \le .05$). Next, I tested the relationship between depletion and the outcomes. The results demonstrate that depletion is negatively and significantly related to task performance ($\gamma = -.09$, $p \le .01$) and extra-role behavior ($\gamma = -.10$, $p \le .05$), and positively related to hobby-work conflict ($\gamma = .13$, $p \le .05$).

Further, I tested the mediation hypotheses as described in Hypothesis 5 and 6 using Monte Carlo simulations for the 95% CIs in Rweb (Koopman, Howe, Hollenbeck, Sin, 2015; Preacher & Selig, 2012). Results demonstrate that depletion does not mediate the relationship between daily hobby involvement and any of the outcomes, as the 95% CIs contain zero with task performance (95% CI [-.05, .15])), extra-role behavior (95% CI [-.002, .077]) and hobby-work conflict (95% CI [-.20, .05]). Figure 4 displays the results of the multilevel path analysis with depletion.



FIGURE 4

Study 1 (Within-Person). Results of Mutlilevel Path Analysis via Depletion. Note: Level-1 (day-level) = 373; Level-2 (person-level) = 55. Control variables were used in this analysis were: day of the week, sleep quality, sleep time, where all not significant. * $p \le 0.05$; ** $p \le 0.01$.

Next, I tested the relationship between daily hobby involvement and enrichment, since enrichment can serve as an alternative mediator to depletion. Results demonstrate that hobby involvement is not significantly related to enrichment ($\gamma = .006$, p = .80).

Overall, the results do not support my theorizing that daily hobby involvement leads to greater daily depletion and subsequent lesser daily task performance, lesser daily extra-role behavior, and increased conflict. However, the results demonstrate that depletion is indeed the cognitive mechanism by which hobby involvement affects employees, although the direction of this cognitive mechanism may be in the opposite direction of the one hypothesized, such that daily hobby involvement decrease depletion, rather than increase depletion.

Although these results are significant, they are based on a relatively small sample size. More importantly, the daily variance in the hobby involvement variable is small and

most participants in this sample were not involved in their hobby on most days of the study. In fact, there are only 345 instances of daily hobby involvement in this sample, and participants had a very low daily hobby involvement (time spent on their hobby) on average per person (Average hours per person = 1.12, Maximum hours per person = 3.5, Minimum hours per person = .07, SD = .87), thus limiting the ability to make generalizable conclusions based on these results.

5.3.4.1 The Moderation of Hobbyholism

Next, I tested the moderation of hobbyholism. The results of the framework with hobbyholism as a moderator are presented in Figure 5. While Hypothesis 8a suggested the hobbyholism will be associated with lesser depletion, the results show the opposite and hobbyholism was associated with greater daily depletion ($\gamma = .45$, $p \le .01$). Moreover, the interaction of hobbyholism and daily hobby involvement hypothesized in Hypothesis 8b was not significant ($\gamma = .16$, p = .19). Overall, these results do not provide support for Hypothesis 8.



FIGURE 5

Study 1 (Within-Person). Results of Mutlilevel Path Analysis via Depletion with Hobbyholism as a Moderator.

Note: Level-1 (day-level) = 373; Level-2 (person-level) = 55. Control variables were used in this analysis were: day of the week, sleep quality, sleep time, where all not significant. * $p \le 0.05$; ** $p \le 0.01$.

More generally, the results of the within-person component of Study 1 do not provide support for the theoretical framework suggested. However, it is unclear whether this is due to limited power and low variance in the variables or due to the nature of the hobby involvement phenomenon. Moreover, it is unclear whether the experience of enrichment / depletion is a cognitive, affective, or physical experience. Study 2 was designed to address these limitations and answer these questions.

5.4 Study 2

While the design of Study 2 was similar to the design employed in Study 1, I designed Study 2 to constructively replicate and address the limitations of Study 1.

First and foremost, Study 1 had a limited daily within-person variance in hobby involvement. In order to address this limitation, the focus of Study 2 was to sample participants with greater daily variation in their hobby involvement in order to have sufficient variance to detect the within-person effects hypothesized. In order to have greater within-person variance, I aimed to recruit for Study 2 people who are more likely to be involved in their hobby several times each week. I focus specifically on running because it is a common hobby which people pursue in varying levels of involvement. Moreover, I recruit people from various running clubs and groups. While people run in differing levels of involvement, those that run with a group or a running club are typically highly involved runners and are involved in running or related activities several times per week.

Second, in order to complement Study 1, I operationalize some of the variables using different scales/measures. (1) While within person hobby involvement was operationalized in Study 1 as time spent on a hobby (today/yesterday), I employ a hobby

involvement measure in Study 2, that is similar to the between-person hobby involvement scale used in Study 1; (2) Within-person conflict in Study 2 added the participant's hobby-life conflict– in addition to hobby-work conflict that was measured in Study 1; and (3) the scales employed to measure enrichment and depletion in Study 1 do not separate cognitive enrichment/depletion from physical enrichment/depletion. Moreover, the measures in Study 1 mix affective and cognitive enrichment/depletion. Thus, in Study 2 the enrichment/depletion measures capture the experience of cognitive enrichment/depletion, at both levels.

Finally, since hobbyholism was not a significant moderator in Study 1, it is not included in the data collection in Study 2.

5.4.1 Procedure and Sample

Study 2 participants were recruited from various running clubs and groups in a large metropolitan area in the United States. I recruited participants using two main methods: (1) personally visiting various running clubs and groups to recruit participants for "a research study about running"; and (2) A recruitment email was posted in a monthly Listserv of a large running club (in the same metropolitan area) that was sent out to all subscribers of the newsletter. Approximately three weeks following this recruitment strategy, I emailed the first survey to those who expressed interest in participating in this study. In the beginning of the first survey, participants read and signed an online consent form, and were asked about their age and employment status. The survey ended immediately if participants did not sign the consent, were younger than 18, or did not work full-time. I asked participants to provide their email address (if they were interested in participating in follow-up surveys) to facilitate the collection of time-lagged data. In

addition to the financial compensation that was the same as in Study 1, participants were told that an additional benefit of participating in this Study is that the results of the study would be shared with them upon completion.

I followed the same between and within-person procedures as described in Study 1. In general, the between-person study included 3 surveys separated by one week; Time 1 survey included questions about participant's work, family, hobby, and demographics. Time 2 survey asked participants' questions regarding their enrichment and depletion, and Time 3 survey asked participants regarding their task performance, extra-role behavior, and well-being.

As detailed in Study 1, Time 3 "between-person" survey was sent to participants on a Thursday, and the "within-person" part of the study began the following Monday. The within-person study included two surveys a day for 10 workdays. The first daily survey was sent at 12 pm each day, and participants had until 3 pm to complete it; it included questions about hobby involvement, enrichment, and depletion. The second daily survey was sent each evening at 6 pm, and participants had until 9 pm to complete it; it included questions about daily task performance, extra-role behavior, hobby-work conflict, and hobby-life conflict.

5.4.1.1 Between-Person Procedure and Sample

Participants had to work full-time and be at least 18 years of age to be eligible for participation. In total, 145 people completed the initial survey. I emailed Time 2 survey links to these participants one week later, and the link to Time 3 survey one week following the second survey. These three surveys consisted of the "between-person" part of the study. Of the 145 people that completed the first survey, 117 people completed

Time 2 surveys, and 120 people completed Time 3 surveys. Overall, 112 people completed all three between-person surveys, for a 77.2% completion rate.

This sample was 64.18% female, with an average age of 39.58 years (ranges from 22 to 73, SD = 11.25). The sample was largely white (85.5%), 7.2% were Asian/Pacific, 4.3% were Hispanic/Latino, and 2.2% were African-American. The sample was highly educated, such that 43.9% of the sample had a bachelor's degree, 39.6% had a master's degree, and 10.8% had a doctorate degree. 57.6% of the sample were married and 69.1% did not have children less than 18 living with them in the same household (11.5% had one child, 12.9% had two, and 4.3% had three children less than 18 living with them in the same household). Participants average job tenure was 6.48 (SD = 7.60), they were working 8.77 hours on average per day (SD = 1.19), spend 1.67 hours per day involved in their hobby (SD = 1.07), and 7.27 hours sleeping (SD = .93). Participants worked in various occupations such as baker, researcher, attorney, librarian, event manager, and data analyst.

5.4.1.2 Within-Person Procedure and Sample

Participants who completed all between-person surveys were eligible to participate and were emailed 2 daily survey in the afternoon and evening of 10 workdays. Participants were paid for each completed survey and were eligible for rewards based on the number of surveys they completed. Data were retained for those who completed both daily surveys for at least three days, as this is the minimum appropriate for modeling within-person relationships (Bolger & Laurenceau, 2013; Singer & Willet, 2003). The final sample included 101 participants who provided 949 days data points. Each one of the 101 participants had on average 6.06 day-level data points.

5.4.2 Measurement

Unless otherwise indicated, all items were measured on a 7-point Likert-type scale anchored at 1 = *strongly disagree* and 7 = *strongly agree*.

5.4.2.1 Between-Person Measures

Hobby involvement. Participants hobby involvement was measured on a 7-point Likert-type scale anchored at 1 = "almost never" to 7 = "very often" using the same 5 items as in Study 1 ($\alpha = .93$).

Enrichment. Participants rated the extent to which they typically experience a state of resource abundance, focusing specifically on their cognitive resources in the past week using 5 items that were adapted from the same scale as in Study 1. Items included: "I was able to deal with the demands I had," "I had the mental resources needed to invest myself in my tasks," "I was mentally free to concentrate," "I had the cognitive availability needed for my roles," and "I had heightened energy" ($\alpha = .88$).

Depletion. Participants rated the extent to which they experience a cognitive depletion in the past week using items that were adapted from the same scale as in Study 1. Items include: "I was mentally exhausted," "I had little or no energy," "I was depleted," and "I often felt drained of energy" ($\alpha = .92$).

Job performance. As in Study 1, job performance was assessed using the same task performance and extra-role behavior scales (task performance $\alpha = .81$; extra-role behavior $\alpha = .75$).

Well-being. Overall well-being was assessed using the same scale as in Study 1 (α = .87).

5.4.2.2 Within-Person Measures

Daily hobby involvement. Daily hobby involvement was measured using a shortened version of 3 items of the same hobby involvement scale used in the betweenperson survey (which included 5 items). Items were: "I was highly involved in [my hobby]," "When I was involved in [my hobby], it was with high intensity," and "my involvement in [my hobby] was intense" (estimated within-person reliability = .84).

Daily depletion. Participants rated the extent to which they experience a state of cognitive depletion using 3 items of the same scale as in Study 1, which was adapted to represent cognitive depletion more specifically. Items included: "At the moment, I feel mentally exhausted," "at the moment, my energy is running low," "right now, I am cognitively depleted" (estimated within-person reliability = .89).

Daily enrichment. Participants rated the extent to which they experience a state of cognitive enrichment using 3 items of the same scale as in Study 1, which was adapted to represent cognitive enrichment more specifically. Items included: "right now, I have the cognitive resources to invest myself in my tasks," "at the moment, I have the cognitive availability needed for anything," and "at the moment, I am mentally able to concentrate" (estimated within-person reliability = .89).

Job performance. I used the same task performance and extra-role behavior as in Study 1 (task performance estimated within-person reliability = .92; extra-role behavior estimated within-person reliability = .60).

Hobby-work conflict. Participants rated the extent to which they experiences conflict between their hobby and work using the same scale as in Study 1 (estimated within-person reliability = .81).

Hobby-life conflict. Participants rated the extent to which they experienced conflict in their personal lives because of their hobby involvement using 5 items adapted from Judge (2004), Netenmeyer (1996), Bolino and Turnley (2005), Carlson (2000), Kopelman (1983), and Wang Liu, & Zhan (2010). Items include: "Today, my hobby kept me from spending the amount of time I would like to spend with my family, "Today, my hobby took time that otherwise I'd like to spend with loved ones," "Today, my hobby made me tense and irritable at home," "Today, the demands from my hobby interfered with my family life" (estimated within-person reliability = .73).

Sleep. Since sleep duration was not significantly related to hobby involvement in study 1 and in order to decrease participant's burden, I only control for sleep quality in this Study using the same 1-item question used in Study 1 (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989): "How would you evaluate the quality of last night's sleep, relative to your average night sleep?" (0 = "very poor", 5 = "average", 10 = "exceptional").

5.4.3 Between-Person: Results and Discussion

Descriptive statistics and correlations among the between-person variables are provided in Table 6.

Variable М SD 2 3 4 5 1 Hobby Involvement (S1) 6.16 .85 1 Enrichment (S2) .90 2 5.55 .21* 3 Depletion (S2) 3.22 1.52 -.05 -.64** Task Performance (S3) .53 .18 08 6.50 .09 4 .26** Extra-Role Behavior (S3) 5.96 .72 .09 -.12 .32** 5 Well-Being (S3) 5.30 .98 .06 .42** -.49** .19* .28** 6

TABLE 6Study 2 (Between-Person). Descriptive Statistics and Correlations among Study Variables.

Note. S1 = measure collected at survey 1; S2 = measure collected at survey 2; S3 = measure collected at survey 3; Listwise N = 112. * $p \le 0.05$; ** $p \le 0.01$.

A CFA indicated that the three-factor model (i.e., hobby involvement,

enrichment, and depletion) demonstrated excellent fit to the data (χ^2 (74) = 134.45; TLI = .94; CFI = .95; SRMR = .06; RMSEA = .08, 90% CI [.06, .10]). Wald tests showed that constraining the correlations to 1 among (a) hobby involvement and enrichment (χ^2 (1) = 54.24, $p \le .01$), (b) hobby involvement and depletion (χ^2 (1) = 78.79, $p \le .01$), (c) enrichment and depletion (χ^2 (1) = 918.47, $p \le .01$), all led to significantly worse fit than the theorized model.

I followed the same data analysis procedure as in Study 1. As in Study 1, I started by examining the regression results using a single-level, regression-based path analysis with maximum likelihood estimator in Mplus 7.2. For Hypotheses 1, similar to Study 1, I examined the relationship between hobby involvement and enrichment. Path analytic results showed that hobby involvement predicted enrichment (B = .23, $p \le .05$; Table 7, Model 1), supporting Hypothesis 1. Moreover, the regression results show that enrichment was significantly and positively related to extra-role behavior (B = .19, $p \le .01$; Table 7, Model 5) and well-being (B = .48, $p \le .001$; Table 7, Model 7), but not related to task performance (B = .03, p = .65; Table 7, Model 3).

Next, I ran a series of path analytic models in Mplus (Muthén & Muthén, 1998-2018) using Maximum Likelihood estimation in model testing and a bootstrap approach with 20,000 samples to test the mediation Hypotheses (Hypotheses 2 and 3; Preacher & Hayes, 2008). The indirect effects via enrichment are displayed in Figure 6.

	Enrichment	Task Performance		Extra-Role	e Behavior	Well-Being		
	Model 1	Model 2	Model 3	Model 4 Model 5		Model 6	Model 7	
	В	В	В	В	В	В	В	
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)	
Intercept	02	6.50**	6.50**	5.95**	5.96**	5.27**	5.28**	
	(.09)	(.05)	(.05)	(.06)	(.06)	(.09)	(.08)	
Hobby	.23*	.13*	.12*	.08	.03	.09	02	
Involvement								
	(.10)	(.05)	(.05)	(.07)	(.07)	(.10)	(.10)	
Enrichment			.03		.19**		.48**	
			(.06)		(.07)		(.10)	
\mathbb{R}^2	.05	.05	.05	.01	.07	.01	.20**	

 TABLE 7

 Study 2 (Between-Person). Regression Analysis of Enrichment, Task Performance, Extra-Role Behavior, and Well-Being.

Note. N = 145. Table entries represent unstandardized parameter estimates with standard errors. All variables (aside from the dependent variables) were mean centered. $*p \le .05$, $**p \le .01$.



Indirect Bootstrap Estimates via Enrichment

Task Performance = .01, 95% CI [-0.02, 0.04] OCB = .20**, 95% CI [0.08, 0.34] Well-Being = .10**, 95% CI [0.02, 0.22]

FIGURE 6

Study 2 (Between-Person). Results of Path Analysis of Indirect Effects via Enrichment. *Note*: N = 112; The model was tested with all outcomes concurrently in Mplus. * $p \le 0.05$; ** $p \le 0.01$.

In line with Hypothesis 2, enrichment mediated some relationships between hobby involvement and the outcomes. Specifically, hobby involvement did not have a significant positive indirect effect on task performance (.01; 95% CI [-.008, .065]), and had a significant positive indirect effect on extra-role behavior (.05; 95% CI [.007, .111]). Moreover, in support with Hypothesis 3 and consistent with Study 1, enrichment mediated the relationship between hobby involvement and well-being, such that hobby involvement had a significant positive indirect effect on well-being (.11; 95% CI [.025, .241]). These results provide support for Hypotheses 3 and partial support for Hypothesis 2.

Next, I tested the same model with depletion as an alternative mediator. The results demonstrate that depletion did not mediate the relationship between hobby involvement and task performance (.00; 95% CI [-.032, .007]), extra-role behavior (.00; 95% CI [-.012, .049]), or well-being (.03; 95% CI [-.082, .160]). Overall, the results support Hypothesis 1 and suggest that hobby involvement is enriching for employees. While the results suggest that hobby involvement increases enrichment, it does not affect employee's depletion, even though enrichment and depletion are highly correlated ($\rho = -$.64, $p \le .001$). Moreover, enrichment mediates the relationship between hobby involvement increases enrichment which subsequently increases employee's extra-role behavior and well-being (but not their task performance).

5.4.4 Within-Person: Results and Discussion

Because the within-person data were nested (measurements nested within participants), I analyzed the data using multilevel modeling methods (MLM). Table 8

displays the proportion of within- and between-person variance in level 1 variables. Daily variables exhibited significant within-person variance (ranging from 32.63% to 78.43%), thereby justifying the use of within-person analysis as within-person variability accounted for substantial total variance in each construct. Table 9 displays descriptive statistics and correlations among the within-person variables.

TABLE 8Study 2 (Within-Person). Percentage of Within-Person Variance among DailyVariables.

Construct	Within- Person Variance ^a	Between- Person Variance ^b	% of Within- Person Variance
Daily Hobby Involvement (AF)	5.78	1.59	78.43%
Depletion (AF)	1.15	0.65	63.89%
Enrichment (AF)	0.31	0.64	32.63%
Task Performance (EV)	0.42	0.51	45.16%
Extra-Role Behavior (EV)	0.65	0.96	40.37%
Hobby-Work Conflict (EV)	0.49	0.41	54.44%
Hobby-Life Conflict (EV)	0.23	0.26	46.94%
Sleep Quality (AF)	1.95	1.14	63.11%

Note. ^a σ^2 ; ^b τ_{00} . % of total variance that is within-person was computed using the formula: $\sigma^2 / (\sigma^2 + \tau_{00})$. AF = measure completed during the midday survey; EV = measure completed during the evening survey.

	Variable	М	SD	1	2	3	4	5	6	7
	Level 1 Variables									
1	Daily Hobby Involvement	2.15	1.37							
2	Depletion	2.68	.94	.00						
3	Enrichment	5.60	.81	07*	76**					
4	Task Performance	6.02	.70	05	37**	.61**				
5	Extra-Role Behavior	5.15	.96	20**	29**	.41**	.63**			
6	Hobby-Work Conflict	1.68	.67	03	.37**	34**	31**	17**		
7	Hobby-Work Conflict	1.45	.54	11**	.26**	23**	19**	09**	.59**	
8	Sleep Quality	6.26	1.16	18**	34**	.37**	.32**	.24**	04	.10**

TABLE 9Study 2 (Within-Person). Descriptive Statistics and Correlations among Study Variables.

Note. Level-1 (day-level) N = 949; Level-2 (person-level) N = 101. Correlations for within-person (Level-1) variables reflect within-person centered relationships. Means and Standard Deviation were calculated per variable per person. * $p \le 0.05$; ** $p \le 0.01$. I followed the same procedure as in Study 1 and tested the theoretical model using a multilevel path analysis model in MPlus 7.2 (Muthen & Muthen, 1998–2018). As in Study 1, I controlled for the day of data collection in all the analyses (cf., Bolger & Laurenceau, 2013) as well as for sleep quality. However, these control variables did not change the pattern or significance of the results and thus are not reported for parsimonious.

I started by testing the relationship between daily hobby involvement and daily depletion described in Hypothesis 4. I did not find support for Hypothesis 4, as the relationship between daily hobby involvement and daily depletion was not significant ($\gamma = -.04, p = .10$). Next, I tested the relationship between depletion and the outcomes. The results demonstrate that depletion is negatively and significantly related to task performance ($\gamma = -.10, p \le .01$), extra-role behavior ($\gamma = -.12, p \le .05$), significantly positively related to hobby-work conflict ($\gamma = .07, p \le .05$), and hobby-life conflict ($\gamma = .10, p \le .001$). Since the relationship between same day hobby involvement and depletion was not significant, it was unnecessary to test mediation and thus Hypothesis 5 and 6 were not supported.

Next, I tested the relationship between daily hobby involvement and enrichment, where enrichment serves as an alternative mediator instead of depletion. Results demonstrate that daily hobby involvement is positively and significantly related to enrichment ($\gamma = .03$, $p \le .05$). I tested the relationship between enrichment and the outcomes next. The results demonstrate that enrichment is positively and significantly related to task performance ($\gamma = .21$, $p \le .001$), extra-role behavior ($\gamma = .16$, $p \le .001$), and negatively related to hobby-work conflict ($\gamma = .10$, $p \le .05$), and hobby-life conflict ($\gamma = .$.09, $p \le .01$), suggesting that it is potentially a mediator in the relationship between daily hobby involvement and the outcomes. Thus, I examined the mediation of enrichment using the same procedure as in Study 1 (Koopman, Howe, Hollenbeck, Sin, 2015; Preacher & Selig, 2012). Results demonstrate that enrichment does not mediate the relationship between daily hobby involvement and any of the outcomes, as the 95% CIs contain zero with task performance (95% CI [-.02, .03])), extra-role behavior (95% CI [-.01, .01]), hobby-work conflict (95% CI [-.01, .01]), and hobby-life conflict (95% CI [-.01, .01]).

Overall, these results do not support Hypothesis 4, 5, and 6, as daily hobby involvement was not related to depletion. Interestingly, the results suggest that greater daily hobby involvement was associated with greater daily enrichment, and enrichment, in turn, enhanced employees' daily task performance, extra-role behavior, and decreased the conflict they experience between their hobby and work and their hobby and life. Although enrichment did not mediate the relationship between daily hobby involvement and these outcomes, this is an interesting finding and contradicts my theoretical predictions.

CHAPTER 6

GENERAL DISCUSSION

Studies 1 and 2 provide support for some elements of the theoretical framework suggested.

6.1 Hobbies as a Between-Person Phenomenon

The between-person results suggest that hobby involvement is enriching for employees. Specifically, the experience of hobby involvement provides enhanced cognitive resources that has the capacity to subsequently affect employees' overall wellbeing (Studies 1 and 2), their task performance (Study 1, but not 2), and their extra-role behavior (Study 2, but not 1). Taken as a whole, these results suggest that hobby involvement is an experience that generates cognitive resources, and those resources can subsequently be targeted towards other domains in employees' lives, such as their work. More importantly, the resources generated by hobby involvement enhance employees overall well-being.

These results suggest that hobby involvement is a beneficial activity for employees, one that enhances their well-being and some elements of their job performance. Consistent with role accumulation theory (Sieber, 1974), hobbies is a domain outside of employees work or family life that has the capacity to expand employees' resources and is beneficial for them across life domains.

6.2 Hobbies as a Within-Person Phenomenon

The within-person results do not support the theoretical framework suggested, in fact, the results suggest the exact opposite of what I theorize. While the theoretical

framework suggested that daily hobby involvement will be depleting, leading to detrimental consequences that day across life domains (in line with role strain theory; Goode, 1960), the results suggest that daily hobby involvement leads to daily enrichment and subsequently to beneficial outcomes across domains. As such, the results are in line with role accumulation theory (Sieber, 1974), rather than role strain theory as hypothesized.

Moreover, the results do not support the mediation of neither enrichment nor depletion on the outcomes examined, suggesting that there is potentially a different mechanism in the relationship between hobby involvement, job performance, and conflict.

6.3 Limitations and Future Research Directions

While several research streams have examined phenomenon related to hobbies in managerial research, this is the first research (that I know of) looking at hobbies as an organizational phenomenon specifically. As such, several unanswered questions remain regarding the effects of hobbies on employees work and life, highlighting future research directions.

First, the between-person results were inconsistent in Studies 1 and 2. While hobby involvement in Study 1 predicted task performance through enrichment (but not extra-role beahvior), hobby involvement in Study 2 predicted extra-role behavior through enrichment (but not task performance). The difference in the sampled population may account for these differences, as well as the general nature of the task performance and extra-role behavior, which may vary between role as different jobs and organizations will likely have different performance and role expectations. In addition, the self-reported

nature of these measure is problematic. Importantly, the relationship between hobby involvement and job performance remains inconclusive and requires further research attention. Other-reports regarding employee's performance will especially facilitate our ability to draw conclusions regarding the ultimate relationship between hobby involvement and job performance.

Second, an important limitation of Study 2 is the nature of running as a hobby. Running is a physical activity, and thus the physical effects of involvement in running may potentially trigger effects that are more salient relative to the effects of transitions between domains. As such, it is important to investigate whether hobbies that are not physical (e.g., chess) carry the same effects as in running.

Third, while hobbyholism did not moderate the relationship between hobby involvement, depletion, and enrichment, this remains a potentially important construct for research about hobbies. The lack of support for these relationships may be due to the scale used, which had an especially low reliability and requires further validation procedures. Hobbyholism remains an important construct because an important determinant of employees' experiences across domains is their attitudes towards those domains, which supplements the effects of the time they spend on those domains (Ten Brummelhuis et al., 2017). Thus, developing, validating, and testing the relationships between hobby involvement and hobbyholism is a promising avenue for future research.

Moreover, other employees' cognitions may affect their experiences across domains. As such, people's preference towards integration/segmentation (Rothbard et al., 2005) can moderate the extent to which domains are beneficial or detrimental to one another, specifically with regards to "third-place" domains. As such, people that are

"segmentors" may choose to eliminate involvement across domains that are not "mandatory", while "integrators" will likely be more inclined to be involved across domains and more likely to benefit from that involvement and to have enriching experiences across those domains.

Another important individual difference that requires attention with regards to hobbies and multiple domains is perfectionism, defined as one's desire for absolute flawlessness (Frost et al., 1990). Perfectionism is most likely to be salient at the work domain, where performance episodes are more prevalent (Harari, Swider, Steed, & Breidenthal, 2018). However, perfectionists' inclination to strive for flawless outcomes in general may make it more difficult for them to fail short on some domains on the expense of others, thus potentially making multiple-domain pursuit more depleting for them.

6.4 Contributions

This research makes several contributions to organizational behavior research. First, I highlight employees' hobbies as a meaningful phenomenon in the workplace. In integrating hobbies into managerial research, I conceptualize and define the "hobbies" construct and highlight the important characteristics of hobbies, what differentiates hobbies from leisure and other related constructs, and position employees' hobbies in its nomological net. By positioning hobbies in the multiple domains research schema and drawing connections between the domains of hobbies, work, and employees' personal lives, I set the stage for research on the effects of hobbies on employees' and their work more broadly.

Second and related, by examining employees hobbies I highlight the effects of "third place" domains on employees' work and their personal lives. Although we know

employees are engaging in activities outside of work, and we have vast knowledge regarding the influence of family on work and vice versa, managerial research has devoted little attention to the effects of these "third place" domains on work and family. In particular, we lack knowledge regarding whether, how, and when "third-place" domains contribute to or detract from employees' work and well-being. Hobbies, as an exemplar for such a "third place" domain (Ashforth et al., 2000), informs our understanding regarding the potential effects of domains outside of work on employees and organizations and thus adds to multiple domains research that has mainly focused on the relationships between the domains of family and work.

Third, this research contributes to multiple domains research and address unanswered questions regarding *when* and *why* (Whetten, 1989) multiple domains have detrimental or beneficial effects for employees across domains (Greenhaus & Powell, 2006). Whereas multiple domains research has examined both positive and negative mechanisms without explicitly stating or predicting when and why each will occur, I examine these differential effects in parallel. Underlying multiple domains research is two conflicting theoretical perspectives. While role strain theory (Goode, 1960) suggests that multiple roles across domains are a sources of conflict and lead to detrimental outcomes across domains, the opposing perspective of role accumulation theory (Sieber, 1974) suggest that multiple roles across domains In this research I examine both perspectives in different temporal frameworks and by so doing settle these previously conflicting views. I contribute by demonstrating that a third place domain (i.e., hobby involvement) can be an enhancing force overall while also being a depleting liability daily for employees'
lives and for other domains. Whereas most multiple domains research makes a clear-cut distinction between positive and negative experiences and suggests that they are separate (Bono, Glomb, Shen, Kim, & Koch, 2013), this research framework accounts for both positive and negative effects on employees' work and lives. By doing so, this research extends our understanding regarding the conflict and synergies between multiple domains (Greenhaus & Powell, 2006). Relatedly, research tends to associate positive experiences with positive outcomes and negative experiences with negative outcomes (Bono et al., 2013; Crawford, LePine, & Rich, 2010; Miner, Glomb, & Hulin, 2005). However, this research suggests that positive experiences, such as hobbies, can also have negative effects on employees and their lives.

Fourth, multiple domains research has examined daily effects and overall/cumulative effects of multiple domain involvement in separate frameworks. However, due to the inflexibility of daily resources relative to their flexibility overall, the ultimate effect of multiple domains may differ from their daily effects. In addition, employees may experience beneficial effects of multiple domains on some days but detrimental effects in others, which makes the overarching effect of multiple domains unknown. Thus, by examining both daily and overall hobby involvement variation in tandem, I add to our knowledge regarding the ways multiple domains affect employees. By examining variation in both between and within-person mechanisms underlying participation across multiple domains, I am able to contribute to a literature that has been criticized for being too abstract and processes that are too difficult to test empirically (Edwards & Rothbard, 2000; Near, Rice, & Hunt, 1980).

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Finally, multiple domains research has mostly examined the effects of involvement across multiple domains on two broad family of outcomes: performance and well-being. I focus on these outcomes in examining *for what* (i.e., performance and wellbeing) are hobbies beneficial or harmful. Overall, given the prevalence of employees' involvement in "third place".

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