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Center for Leadership in the Future of Work

Between home and work:

commuting as an opportunity for role transitions

Summary

What we found: Commuting is known as one of the most stressful parts of people's workdays. But we find in a study of 1,736 commuters that employees who use their commute as an opportunity to "switch roles" and transition into and out of their workday find commutes less stressful.

Why it matters: On average, people spend about an hour each day commuting to and from work. Helping to reduce stress caused by commutes – and even making commutes into a productive opportunity to ease into and out of the workday – can bring benefits for employee well-being.

What next: Companies and team leaders can help employees use their existing commute for the better, or in remote settings, they can create opportunities to help employees switch into and out of work, such as creating a 'virtual commute ' that gives employees time to plan and reflect on their day.

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Between Home and Work: Commuting as an Opportunity for Role Transitions

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Abstract

Across the globe, every workday people commute an average of 38 minutes each way, yet surprisingly little research has examined the implications of this daily routine for work-related outcomes. Integrating theories of boundary work, self-control, and work-family conflict, we propose that the commute to work serves as a liminal role transition between home and work roles, prompting employees to engage in boundary management strategies. Across three field studies (N = 1,736), including a four-week-long intervention study, we find that lengthy morning commutes are more aversive for employees with lower trait self-control and greater work-family conflict, leading to decreased job satisfaction and increased turnover. In addition, we find that employees who engage in a specific boundary management strategy we term *role-clarifying prospection*—i.e., thinking about the upcoming work role—are less likely to be negatively affected by lengthy commutes to work. Results further show that employees with higher levels of trait self-control are more likely to engage in role-clarifying prospection, and employees who experience higher levels of work-family conflict are more likely to benefit from role-clarifying prospection. Although the commute to work is typically seen as an undesirable part of the workday, our theory and results point to the benefits of using it as an opportunity to transition into one's work role.

Keywords: Commuting, Boundary Work, Self-Control, Work-Family Conflict, Prospection

Employees' home and workplace are often in separate locations, and as a result, most face a commute every workday. Globally, the mean commuting time is about 38 minutes each way (Rampell, 2011). An average commuter spends almost 300 hours traveling between home and work over the course of a year, equivalent to more than 10% of her total working time (OECD, 2017). In addition, commutes are getting longer: One recent study found that the distance between employees' home and their workplace in the United States grew by about 5% from 2000 to 2012 (Kneebone & Holmes, 2015).

Extant research suggests that people do not enjoy commuting. In a survey conducted by Kahneman and Krueger (2006), respondents identified the morning journey between home and work as their least desirable activity of the day, with the evening commute being rated as the third worst activity. Crucially, employees not only dislike commuting but also bear negative consequences from it: Several surveys have found that longer commutes are associated with lower levels of job satisfaction and increased turnover intention (Chatterjee, Clark, & Martin, Davis, 2017; Zhang & Feinzig, 2016). However, despite the pervasiveness of commuting and its significant impact on people's lives, few organizational researchers have studied this part of the day. As a result, it remains poorly understood *who* is most affected by the commuting experience, *when* people are particularly affected, and *how* people could better cope with lengthy commutes.

To address these questions, we draw on boundary theory, which is concerned with how people manage different work and non-work roles (Ashforth, 2000; Edwards & Rothbard, 2000; Kossek et al., 1999; Nippert-Eng, 1996). We conceptualize commuting as a time period during which employees' home and work roles are co-activated as they physically and psychologically transition between these different roles (Rothbard & Ramarajan, 2009). Transitions from one role to another require boundary work, which involves "strategies, principles, and practices we use to create, maintain, and modify cultural boundaries" (Nippert-Eng, 1996, p. 7). We extend boundary theory by suggesting that the boundary work inherent in commuting affects employees' job satisfaction and turnover intentions. Whether employees suffer from long commutes, we propose, is contingent on characteristics of commuters—specifically, on their levels of trait self-control and work-family conflict. Research on self-control (de Ridder, Lensvelt-Mulders,

Finkenauer, Stok, & Baumeister, 2012; Hofmann, Luhmann, Fisher, Vohs, & Baumeister, 2014) implies that people higher in trait self-control may be better able to regulate their thoughts during their commute, thus facilitating a smoother and more efficient role transition. Moreover, literature on work-family conflict (Edwards & Rothbard, 2000; Greenhaus & Beutell, 1985; Rothbard et al., 2005) indicates that longer commutes may be particularly challenging for those with greater work-family conflict because these employees must manage two conflicting roles. Finally, we propose that in order to cope with longer commutes, employees may engage in *role-clarifying prospection* (drawing on Austin & Vancouver, 1996; Szpunar, Spreng, & Schacter, 2014), a specific boundary work strategy that involves engaging in thoughts about their upcoming (work) role during employee's commute to work.

The current research makes several theoretical contributions. First, in conceptualizing commuting as a role transition that requires self-regulatory resources, we identify two important boundary conditions (trait self-control and work-family conflict), develop a logic on why these factors may facilitate or hinder an employee's effective role transition during their commutes, and highlight how it spills over into critical job-related outcomes including job satisfaction and turnover. Second, we advance boundary theory by elucidating *how* people can transition effectively from one role to another during their commute to work. We theorize that a specific boundary management strategy (i.e., role-clarifying prospection) buffers the negative consequences arising from longer commutes. In sum, by bringing together organizational and psychological research in an endeavor to understand the role of commuting in people's working lives, we advance an account that may help commuters around the world to better use their commute to transition from one role to another.

THEORY

Commuting, Job Satisfaction, and Turnover

Previous research suggests that the longer people commute, the lower their job satisfaction—defined as "the extent of positive emotional response to the job resulting from an employee's appraisal of the job as fulfilling or congruent with the individual's values" (Morris & Venkatesh, 2010: 145)—and the higher their likelihood to quit their current job (i.e., turnover; Chen, Ployhart, Thomas, Anderson, &

Bliese, 2011). For example, in one survey of over 26,000 employees studied longitudinally over five years, employees who had lengthier commutes reported lower job satisfaction (Chatterjee, Clark, & Martin, Davis, 2017). Another survey of more than 22,000 employees showed that in response to the question "What would make you leave your current organization for a new job?," around half of all participants responded "an easier commute to work" (Zhang & Feinzig, 2016). In order to be fully compensated for the decrease in life satisfaction prompted by longer commutes, a study by Stutzer and Frey (2008) found that the average commuter would need to receive a pay raise of 19% per month. The linkage between longer commutes and both lower satisfaction and higher turnover is thus evident in the literature across different disciplines.

One perspective that specifically theorized the negative effects of commutes is the "commute impedance model" (Novaco, Stokols, Campbell, & Stokols, 1979), which proposes that commuters suffer when their commute is interrupted or delayed. This model defines impedance as a behavioral restraint on movement or goal attainment (Novaco, Kliewer, & Broquet, 1991), i.e., as anything that frustrates the goal to arrive at a destination, such as traffic congestion, construction, or delays. As a result, when employees encounter situations during their commute that may delay their arrival at work, they experience greater levels of stress (Koslowsky, Kluger, & Reich, 1995; Novaco & Gonzalez, 2011; Stokols, Novaco, Stokols, & Campbell, 1978). Longer commutes offer more opportunities for impedances to occur, and thus, longer commutes have the potential to be more stressful (Evans & Wener, 2006; Hennessy & Wiesenthal, 1997; Novaco et al., 1991; Schaeffer, Street, Singer, & Baum, 1988). This aversive commuting experience may spill over into an employees' work experience, negatively influencing job satisfaction and encouraging turnover (Demerouti, Bakker, & Schaufeli, 2005; Sonnentag & Binnewies, 2013). In turn, because employees view commuting as part of their job—given that they engage in commuting in order to get to work—employees are likely to attribute their negative feelings during their commute to their job (Cesario, Grant, & Higgins, 2004; Schwarz & Clore, 1983). The commute impedance model thus offers a tentative reason for why longer commutes take a toll on job satisfaction: Because of the increased likelihood of interferences when people travel to work. As the

psychologist Daniel Gilbert has said, "You can't adapt to commuting, because it's entirely unpredictable. Driving in traffic is a different kind of hell every day" (as cited in Vanderbilt, 2008: 141). By extension, the longer employees commute every day, the more exposed they are to this "unpredictable hell."

Interestingly, despite the stress inherent in commuting—and although people consistently report disliking commuting—when asked about the "ideal" commute length, their answer is not zero; instead, one study finds it to be 16 minutes (Redmond & Mokhtarian, 2001). Another study of 418 commuters found that once the variability in commuting time due to impedances is taken into account, people with longer commutes enjoy them *more* (Kluger, 1998). Even people with higher income, who can often afford to live closer to work, tend to commute longer distances, displaying a preference for some commuting time (Vanderbilt, 2008). This suggests that there may exist benefits to having some commuting time as a buffer between home and work, indicating that the commute impedance model alone may not be sufficient in capturing the varied effects of commuting time on job satisfaction and turnover. Beginning with the suggestion that there may be some value in commuting—and that certain people are more affected by commuting than others—we here intend to develop a nuanced understanding of commuting, and the conditions under which commute time is related to job satisfaction and turnover.

Commuting as Crossing Role Boundaries

We draw on boundary theory (Ashforth, 2000; Edwards & Rothbard, 2000; Kossek et al., 1999; Nippert-Eng, 1996) to suggest that commuting may prompt a particular kind of boundary work that employees engage in on a daily basis. Two roles have received particular attention in prior research, employees' home and work roles. A role is defined as "the building block of social systems and the summation of the requirements with which such systems confront their members as individuals" (Katz & Kahn, 1978: 219–220); specifically, home roles commonly concern psychological and affective requirements placed on the individual by family members and friends, whereas work roles typically reflect instrumental requirements conducive to task accomplishment that are put forth by colleagues and managers (Ashforth, Kreiner, & Fugate, 2000; Evans & Bartolomé, 1984; Oldenburg, 1997).

Boundary theory suggests that boundaries between work and home domains have become more

permeable in modern workplaces, with employees increasingly integrating work and home roles in time and space (e.g., flextime and flexplace job designs, Ashforth, Kreiner, & Fugate, 2000). In particular, boundary theory highlights that employees' work roles may be disrupted and distracted by having their home roles spillover, and vice versa. For example, research has investigated the extent to which employees psychologically transcend the physical work/non-work boundary by thinking about non-work-related activities while still at work (Dumas & Sanchez-Burks, 2015; Smit, Maloney, Maertz, & Montag-Smit, 2016), such as thoughts related to their role as a spouse or parent (Dumas & Smith, 2017; Dumas & Stanko, 2017).

Prior research proposes two general strategies to manage boundaries: segmentation and integration (Nippert-Eng, 1996). Home and work roles can thus be more or less segmented (with people drawing a clear distinction between these two roles) or integrated (with people blurring the boundary between the two roles; Rothbard, Phillips, & Dumas, 2005). Existing research has focused on how employees manage the boundary between different roles and on the extent to which employees desire and enact segmentation or integration of home and work roles (Rothbard, Phillips, & Dumas, 2005). It should be noted, however, that these strategies imply that employees are either at work or at home and strive to demarcate or integrate the two roles. We instead focus here on the time period during which people transition between roles, which has not been extensively studied in prior research within boundary theory. Indeed, by focusing on commuting time, we shed light on a neglected aspect of boundary theory: the role transitions.

Defined as the "psychological and physical movement between sequentially held roles" (Ashforth, 2000: 7), role transitions involve three stages: role exit, transition, and role entry (Ashforth et al., 2000; van Gennep, 1960). In their seminal work on boundary theory, Ashforth and colleagues (2000: 473) noted that commutes offer an opportunity for "a physical and psychological shift between roles." In our research, we focus on the commute to work that requires exit from the home role, the transition during which the role switch occurs, and entry into the work role. In this sense, the commuter is in the process of crossing a boundary between their home role to their work role. Based on our conceptualization of

commuting as role transitions, we propose two key factors that could modulate the relationship between lengthy commutes and job satisfaction in the following section.

Trait Self-Control and Work-Family Conflict as Moderating Factors

The first factor that we suggest helps people navigate the commute to work is trait self-control, or "the capacity […] to regulate behavior, thoughts, and emotions" (de Ridder et al., 2012: 77). Given that the goal of the commute is to physically arrive at work and to psychologically enter the work role, we suggest that employees with higher levels of trait self-control are more likely to efficiently transition into their work role than those with lower levels of trait self-control.

Research suggests that levels of trait self-control are related to how likely individuals are to plan ahead, especially for future goal-related tasks (de Ridder et al., 2012), as well are how likely individuals are to acknowledge that planning is a useful activity (Alahmadi et al., 2017). Thus, individuals with higher levels of trait self-control may be more likely to build future-oriented routines (e.g., estimating travel time based on traffic and weather conditions in advance, having a routine for sleep, clothes and breakfast, and so forth), which largely shape how their commutes are experienced. On the other hand, those who have lower levels of trait self-control may be less likely to develop and stick with systematic and routinized behaviors that serve to make the commute less aversive; and as a result, they may be less able to cope with unpredictable events during their commute.

Since an employee's level of trait self-control influences their ability to withstand unpredictable events or delays during their commute, this would result in a repeated experience of daily commuting being perceived as more or less aversive and frustrating. As we noted above, employees view commuting as part of their job and are likely to attribute their negative feelings during their commute to their job (Cesario et al., 2004; Schwarz & Clore, 1983). For this reason, employees with higher levels of trait self-control may be more likely to transition well into their work role during their commute to work, thus leaving them less vulnerable to the strain of commuting and, as a result, more satisfied with their job. In contrast, and following the same logic, employees with lower levels of trait self-control may be more vulnerable to the strain of commuting and thus less satisfied with their job. We therefore propose the

following:

Hypothesis 1. The negative relationship between commute length and both job satisfaction and turnover is less pronounced for employees with high trait self-control than for those with low trait self-control.

Another crucial factor that increases the tension between home and work roles is work-family conflict, defined as "a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible so that participation in one role [home] is made more difficult by participation in another role [work]" (Greenhaus & Beutell, 1985: 77). Past research has examined situations where employees' role expectations are clearly defined as either work or home related. Cross-role thoughts often arise spontaneously rather than in a planned fashion, intruding into an employee's current role (Lin, Kain, & Fritz, 2013). With higher levels of work-family conflict, it is more likely that experiences in one's home role interfere with the requirements of and effectiveness in one's work, and vice versa (Edwards & Rothbard, 2000). The negative consequences of increased work-family conflict extend beyond work interference; for example, work-family conflict is associated with higher levels of burnout and the experience of negative emotions such as guilt and hostility both at work and at home (Bacharach, Bamberger, & Conley, 1991; Ilies, Scott, & Judge, 2006) as well as poorer health outcomes (Davis, Gere, & Sliwinski, 2017). To the extent that work-family conflict psychologically hinders commuter's role transition, and makes the co-activation of home and work roles during the commute to work more straining (Ramarajan, Rothbard, & Wilk, 2017; Robin, Baumann, & Kotik, 2018; Rothbard & Ramarajan, 2009), we propose that the negative effects of lengthy commutes will be particularly more pronounced for employees who have high levels of work-family conflict than for those who have low levels of work-family conflict.

Hypothesis 2. The negative relationship between commute length and both job satisfaction and turnover is more pronounced for employees who experience higher levels of work-family conflict

than for those with lower levels of work-family conflict.

Role-Clarifying Prospection as a Boundary Management Strategy

Boundary theory suggests that employees can transcend the home/work boundary cognitively by thinking about work activities while they are not yet at work or by thinking about non-work activities while they are at work (Dumas & Sanchez-Burks, 2015; Dumas & Smith, 2017; Glavin, Schieman, & Reid, 2011; Nippert-Eng, 1996; Rothbard et al., 2005). Indeed, employees may enact a boundary management strategy to organize and separate role demands and expectations (Kossek et al., 1999). Drawing from this work, we argue that during their commute, employees can cognitively transition into and enact another role by thinking about role-relevant aspects. To do so, employees might use a cognitive boundary management strategy called *prospection,* which refers to "the ability to represent what might happen in the future" (Szpunar, Spreng, & Schacter, 2014: 18414).

Specifically, during their commute, employees may benefit from what we call *role-clarifying prospection*, the ability to clarify what role to enact next. Through role-clarifying prospection, employees mentally shift their attention from what they are experiencing in the present—thoughts pertaining to their commute, or thoughts unrelated to their past or future role—to what they will be experiencing when they arrive at work, namely, thoughts pertaining to their workday. We argue that this future focus enables employees to cognitively enact their upcoming work role during their commute, facilitating work role entry. By cognitively activating an employee's work role prior to entry, role-clarifying prospection prepares employees by providing them with a clear sense of which role they are transitioning into before getting to work.

In so doing, we posit that role-clarifying prospection also reduces the psychological burden of co-activated identities. The role transition during the commute to work involves the co-activation of both home and work identities, while employees linger between exiting their home role and entering their work role (Ramarajan et al., 2017; Robin et al., 2018; Rothbard & Ramarajan, 2009). Such co-activation is commonly experienced as aversive because it brings to mind potentially conflicting goals associated with

each role, which can prompt negative affect (Edwards & Rothbard, 2000; Festinger, 1957; Rothbard & Ramarajan, 2009). Because lengthy commutes to work extend the time spent in co-activation, this prolonged negative experience may spillover into employees' work day such as through affective primes (e.g., starting one's day on the wrong foot, see Rothbard & Wilk, 2011). Consider that in the work-home resources model, demands in one domain may deplete mental resources (such as time, energy, and mood) and reduce accomplishments in the other domain (ten Brummelhuis & Bakker, 2012). Likewise, employees whose commuting time is not utilized for effective role transition, but instead used for ruminating on their home role, may feel depleted at the onset of their role entry with remaining co-activated identities and lingering thoughts about their home role. Employees may ultimately attribute such depletion to how dissatisfied they are with their employment as they accumulate similar experiences over time.

Role-clarifying prospection may, however, prevent this effect by limiting the time of co-activated roles in favor of facilitating work role entry, thus focusing employees on thinking about upcoming tasks and setting priorities for the workday ahead. As a result, role-clarifying prospection may reduce the burden of commuting. A successfully-employed, repeated use of role-clarifying prospection as an habitual routine during the daily commute may reduce the likelihood of rumination on the employee's home role, and therefore buffer the negative spillover of a lengthy commute. Effective role transitions may then reduce employees' interpretation of the negative experience in the morning as representative of their overall job satisfaction (Neal, Wood, & Drolet, 2013; Neal, Wood, Labrecque, & Lally, 2011). This may subsequently also reduce employees' intention to quit their job and look for alternative jobs (Griffeth et al., 2000). Thus, we suggest that role-clarifying prospection represents a specific type of boundary management strategy that can buffer against the aversive effects of lengthy commutes by facilitating one's work role entry.

Hypothesis 3. Engaging in role-clarifying prospection attenuates the negative effect of

commuting time on job satisfaction and turnover.

Although role-clarifying prospection is a cognitive boundary management strategy anyone can engage in, we suggest that employees with higher levels of trait self-control are more inclined to engage in role-clarifying prospection. Higher levels of trait self-control are achieved in part through a variety of cognitive strategies that influence an individual's ability to remain on track with their intended goals and regulate their thoughts (Inzlicht, Legault, & Teper, 2014; Magen & Gross, 2010). For example, individuals with higher levels of trait self-control are more likely to recognize opportunities to deploy cognitive strategies that may help them regulate their thoughts (Myrseth & Fishbach, 2009). Indeed, individuals with higher levels of trait self-control are more likely to recognize situations where regulation can be deployed for beneficial outcomes (Converse, Juarez, & Hennecke, 2019; Tornquist & Miles, 2019).

Taken together, employees with higher trait self-control may thus use their capacity to regulate their thoughts to engage in specific cognitions that allow them to transition into their work role. They may thus be better able to mentally engage in boundary management strategies (such as role-clarifying prospection) that facilitate a work role entry even before they arrive at work and the workday begins (Ashforth, 2000; Smit et al., 2016). On the other hand, employees with lower levels of trait self-control are more likely to engage in thoughts and behaviors that are rewarding in the short term (Hofmann, Vohs, & Baumeister, 2012). As a result, those employees may be more likely to be left in limbo during their commute, engaging in behaviors that are rewarding in the short term, such as listening to music or daydreaming, but that are inconsistent with the goal of role transition (Kluger, 1998; Novaco et al., 1990). We thus argue that individuals with higher levels of trait self-control differ from those with lower levels of trait self-control in how they relate to long-term goals and in how they regulate their time and attention, suggesting that they are likely to engage in role-clarifying prospection during their commute.

Hypothesis 4. Employees who have high levels of trait self-control are more likely to engage in role-clarifying prospection during their commute to work, as compared to those who have low

levels of trait self-control.

Lastly, we propose that the beneficial outcomes associated with role-clarifying prospection outlined above—i.e., its attenuation of the negative consequences of lengthy commutes by facilitating role transitions—are particularly important for employees with greater work-family conflict. This proposition aligns with a qualitative study of individuals who work at home (Ahrentzen, 1990), which found that those who did not make an effort to separate work and family were more likely to experience both role overlap between work and non-work activities and work-family conflict. In contrast, those who created boundaries to manage their work-family conflict—including transition rituals, such as exercise—were less likely to experience role overlap and work-family conflict. As a result, engaging in role-clarifying prospection may be particularly important for this group of employees, offering them an opportunity to deliberately clarify their upcoming work role:

> **Hypothesis 5.** Role-clarifying prospection will attenuate the negative effect of longer commutes on job satisfaction and turnover more strongly for individuals with higher levels of work-family conflict.

Overview of the Present Research

Our conceptual model is depicted in Figure 1. We tested the five hypotheses across three field studies. Study 1 investigated in the field whether the negative relationship between the length of employees' commute and job satisfaction is attenuated for employees with higher levels of trait self-control and whether this influences turnover (Hypothesis 1). For Study 2, we recruited full-time employees through an online panel to complete a survey where we sought to both replicate the results of Study 1 and to test the remaining hypotheses (Hypotheses 2-5). Study 3 consisted of a field experiment during which we manipulated role-clarifying prospection for two weeks by prompting some employees, but not others, to think about their work day ahead while commuting and then examined the effect of this manipulation on employees' job satisfaction and turnover intention. The third study offered a causal examination of whether role-clarifying prospection attenuates the negative effect of commuting time on

job satisfaction and turnover intention, testing Hypotheses 3 and 5.

Insert Figure 1 about here

STUDY 1

In Study 1, we tested whether employees with higher levels of trait self-control are less adversely affected by lengthy commutes than their low-self-control counterparts. This study provides an initial test of our idea that the commute to work activates boundary work, which may benefit employees with higher levels of trait self-control (i.e., Hypothesis 1). To do so, we conducted a multi-time-point, multi-source field study at the U.K. offices of a global media firm. We anticipated that employees with lengthy commutes and lower trait self-control would be less satisfied with their jobs and more likely to quit the organization.

Method

Sample and Procedures. The firm's CEO sent email invitations to all 559 employees asking them to participate in a study about improving their workplace. Thirty days later, the CEO sent a second email to all employees inviting them to complete a second survey. We matched the data between the two surveys through an assigned code that participants received. In addition, the human resources (HR) department of the firm provided us with turnover data six months after the second survey. Of the invited employees, 332 responded to the first survey (59.4%), and 333 responded to the second survey (59.6%). A total of 225 employees completed both surveys and had HR data that could be matched (M_{age} = 32.72, SD_{age} = 6.87; 57% male). Respondents had worked at the firm for an average of 2.85 years (*SD* = 3.37). We compared the demographics of respondents and non-respondents and found no differences in age (*non-respondents' M* = 31.97, *SD* = 9.00, *t*(557) = –1.24, *ns*), gender (*non-respondents' N* = 335, 35.2% female, X^2 (1) = 3.50, *ns*), or firm tenure (*non-respondents' M* = 3.04, *SD* = 3.73, *t*(557) = .54, *ns*).

Measures

Commuting Time. Employees reported their daily commuting time in the second survey.

Commuting duration ranged from 2 to 240 minutes, with an average of 50.56 minutes (*SD* = 31.8). This is comparable to the 74-minute average commute where the study was conducted (London, UK; see Cotton, 2018).

Trait Self-Control. We assessed trait self-control using a 10-item measure (Tangney, Baumeister, & Boone, 2004) in the first survey, e.g., "I am good at resisting temptation" and "I do things that feel good in the moment but regret later on" (1 = "Not at all like me" to 5 = "Very much like me," α = .77).

Job Satisfaction. We measured employees' job satisfaction using a 3-item scale (Morris & Venkatesh, 2010) in the second survey, e.g., "Overall, I am satisfied with my job" (1 = "Strongly Disagree" to 7 = "Strongly Agree"; α = .81).

Actual Turnover. We assigned a "1" to the 41 respondents (19.2%) who voluntarily left the firm in the six months after the second survey and a "0" to all others.

Control Variables. We controlled for age, gender, and organizational tenure in the analyses because age and gender are related to job satisfaction (Clark, 1997; Clark, Oswald, & Warr, 1996; Hunt & Saul, 1975; Kalleberg & Loscocco, 1983). Age and tenure are also negatively related to turnover, with women tending to quit their jobs less often than men (Griffeth et al., 2000). In addition, we controlled for hierarchy using information that we received from the organization's HR department about the hierarchy level of employees, which ranged from 0 (most junior) to 6 (most senior). To control for job performance, which has been associated with job satisfaction (Judge, Thoresen, Bono, & Patton, 2001), we received information from the HR department on whether an employee had received an award for exceptional performance in the year prior to data collection, which 27 employees did (12% of the sample).[1] Finally, to differentiate our effects from those predicted by the commute impedance model, we controlled for levels of job stress with four items adapted from Motowidlo et al. (1986; α = .85): "My job is extremely stressful," "Very few stressful things happen to me at work" (reversed), "I feel a great deal of stress

[1] Employees receive awards to honor exceptional performance. They are nominated for an award by any employee in the organization, who must provide a rationale. Nominations are reviewed by the director of HR and CEO. Awards are prestigious and include a cash prize. Employees can only receive one award in a 12-month time frame.

because of my job," and "I almost never feel stressed because of my work" (reversed).[2]

Results

Table 1 reports means, standard deviations, and correlations for the study variables. First, we conducted a confirmatory factor analysis with maximum likelihood estimators to examine the factor structure of the variables. The expected three-factor structure (i.e., trait self-control, job satisfaction, and job stress as separate factors) showed a better fit with the data than a two-factor ($\Delta\chi^2 = 371.04$, $p < .001$) or one-factor ($\Delta\chi^2 = 624.03$, $p < .001$) structure, and all variables had statistically significant factor loadings in the expected direction.

Hypothesis 1 posited that trait self-control moderates the relationship between commuting time and job satisfaction, such that employees with lower trait self-control are more likely to be negatively affected by lengthy commutes. To test this hypothesis, we conducted a regression analysis, entering commuting time as the independent variable, trait self-control as the moderator, and job satisfaction as the outcome variable. As Table 2 shows, we found a statistically significant interaction between commuting time and trait self-control on job satisfaction ($B = .212$, $SD = .094$, $p = .025$). The relationship between commuting time and job satisfaction was statistically significant for employees with low trait self-control, (–1SD), $B = –.28$, $SE = .14$, $p = .04$, and not for employees with high levels of trait self-control, (+1SD), $B = .14$, $SE = .11$, $p = .24$, as depicted in Figure 2. Hence, employees with lower trait self-control were negatively affected by lengthy commutes, whereas employees with higher trait self-control were not. For every 15-minute commuting time increase, the job satisfaction of employees with low trait self-control

[2] We re-ran all analyses without control variables, and the results remained unchanged in terms of direction and significance.

dropped by 0.26 points (on a 1-to-7 scale).[3]

Insert Tables 1 and 2 and Figure 2 about here

We next tested whether the moderating effect of trait self-control on the relationship between commuting time and job satisfaction influenced an employee's likelihood of leaving the organization. In a moderated mediation model, we used commuting time as the independent variable, trait self-control as the moderator, job satisfaction as the mediator, and actual turnover six months later as the dependent variable. We found a statistically significant indirect effect of commuting time on turnover, through job satisfaction and depending on trait self-control. For employees who have low trait self-control, a bootstrap analysis with 5,000 bias-corrected samples showed that the confidence interval for the indirect effect of commuting time on turnover (through job satisfaction) did not include zero (*estimate* = .02, *boot SE* = .011, $CI_{95\%}$ = [.004, .049]). For those who have high trait self-control, however, the confidence interval included zero (*estimate* = –.01, *boot SE* = .009, $CI_{95\%}$ = [–.035, .002]). Therefore, lengthy commutes put employees with low trait self-control in peril of quitting their job due to lower job satisfaction but left employees with high self-control unaffected.

Summary

The aim of this study was to test whether the relationship between commuting time and job satisfaction is moderated by levels of trait self-control and whether this has a downstream consequence for actual turnover six months after the initial measurement. The findings offer support for Hypothesis 1, suggesting that those with longer commutes experience lower job satisfaction to the extent that they lack

[3] We also tested whether employees with longer commutes reported lower levels of job satisfaction. Contrary to previous studies, we did not find a significant main effect for commute time on job satisfaction: individuals with lengthy commutes were no more likely to have lower levels of job satisfaction (*B* = -.002, *SE* = .003, *p* = .57). This finding is in line with our reasoning that the effect of commute time on job satisfaction is contingent upon a third variable: trait self-control. Furthermore, a reasonable alternative to a linear relationship between commute time and job satisfaction is a curvilinear relationship, which implies that too short a commute is as bad as too long a commute. We thus tested for a quadratic effect of commute time on job satisfaction but found no evidence for such an effect (*p* = .26).

high levels of trait self-control, which in turn leads to increased levels of turnover. Hence, compared to those with lower trait self-control, employees with longer commutes and higher trait self-control are less likely to leave their organization due to their relatively higher levels of job satisfaction.

STUDY 2

Study 2 aimed to provide further support for the boundary work inherent in the commute to work. First, we aimed to provide further support for the finding that employees with higher trait self-control are less negatively affected by longer commutes (Hypothesis 1). Next, we sought to test whether employees who experience greater work-family conflict are more negatively affected by longer commutes (Hypothesis 2). Further, we aimed to test whether employees' engagement in role-clarifying prospection moderates the aversive effect of longer commutes (Hypothesis 3), whether employees with higher trait self-control are more likely to engage in role-clarifying prospection (Hypothesis 4), and whether the attenuating effect of role-clarifying prospection on longer commutes is stronger for employees with greater work-family conflict (Hypothesis 5). To address these questions, we conducted a field study at a financial services firm located in Latin America, and used the translation procedure outlined by Schaffer and Riordan (2003) to adapt our measures to Spanish.

Method

Sample and Procedures. The firm's human resource (HR) department selected 4,800 employees at random from its larger employee pool and informed them that they would be contacted by an outside research team. We subsequently emailed invitations to these employees asking them to participate in a study that was aimed at improving their workplace. Of the invited employees, 1,068 responded to the survey and had HR information that could be matched (response rate: 22.31%; M_{age} = 35.60, SD_{age} = 7.77; 63% female). Respondents had worked at the firm for an average of 10.99 years (SD = 8.79). We compared the demographics of respondents and non-respondents and found no differences in age (*non-respondents* M = 35.37, SD = 8.13, $t(5874) = .82$, $p = .41$), gender (*non-respondents* were 65% female,

t(5874) = -1.22, *p* = .22), or firm tenure (*non-respondents M* = 11.25, *SD* = 7.50, *t*(5874) = -1.00, *p* = .32).

Measures

Commuting Time. Participants reported their actual commuting time, which ranged from 1 to 200 minutes, with an average of 70.61 minutes (*SD* = 40.00).

Trait Self-Control. We assessed employees' trait self-control using a shortened 7-item version of the same 10-item measure as in Study 1 (Tangney, Baumeister, & Boone, 2004; α = .88).

Work-Family Conflict. We collected participants' responses to three items to measure work-family conflict on a 7-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree; α = .73; Netemeyer, Boles, & McMurrian, 1996), including, "The demands of my job interfere with my ability to fulfill family or home responsibilities" and "My home and family responsibilities interfere with my ability to perform my job well."

Role-Clarifying Prospection during Commute. We assessed the extent to which participants engaged in role-clarifying prospection during commute to work with the item, "To what extent did you think about work during your commute to work today?" with response options ranging from (not at all) to 7 (to a great extent).

Job Satisfaction. We measured the extent to which participants were satisfied with their jobs using the same 3-item instrument as in Study 1 (Morris & Venkatesh, 2010; α = .72).

Turnover Intention. We measured employees' desire to quit their organization using two items, "I frequently think of quitting my job" and "I am planning to search for a new job during the next 12 months" (Chen et al., 2011), rated on a scale from 1 = "Strongly Disagree" to 7 = "Strongly Agree" (*r* = .67).

Control Variables. We measured age and gender as control variables, same as in Study 1, given their relationship to job satisfaction (Clark, 1997; Clark et al., 1996; Hunt & Saul, 1975; Kalleberg & Loscocco, 1983) and turnover (Griffeth et al., 2000). We also controlled for job performance—given its link to job satisfaction and turnover (Judge et al., 2001)—which we measured by asking participants to respond to four items adapted from Williams and Anderson (1991; α = .86): "I fulfil the responsibilities

specified in my job description," "I perform the tasks that are expected as part of the job," "I meet performance expectations," and "I adequately complete responsibilities." In addition, we controlled for participants' current levels of job stress with the same four-item scale as in Study 1.[4]

Results

Table 3 reports means, standard deviations, and correlations for the variables. First, we conducted a confirmatory factor analysis with maximum likelihood estimators. The expected five-factor structure (i.e., trait self-control, job performance, job stress, job satisfaction, and turnover intention as separate factors) showed a significantly better fit with the data than a four-factor ($\Delta\chi^2 = 1292.80$, $p < .001$), three-factor ($\Delta\chi^2 = 1468.40$, $p < .001$), two-factor ($\Delta\chi^2 = 4159.90$, $p < .001$), or one-factor ($\Delta\chi^2 = 5273.40$, $p < .001$) structure, and all variables had statistically significant factor loadings in the expected direction.

Insert Table 3 about here

We first tested Hypothesis 1, i.e., whether trait self-control moderated the relationship between commuting time and job satisfaction and, in turn, turnover intention. The results showed that the interaction effect for commuting time and trait self-control on job satisfaction was statistically significant ($B = .0017$, $SE = .0007$, $p = .0096$; see Table 4; ΔR^2 relative to model without interaction term: .004). Subsequent analysis revealed that the relationship between commuting time and job satisfaction was statistically significant for employees with low trait self-control, (–1SD), $B = –.0037$, $SE = .0010$, $p < .001$, and not for those with high levels of trait self-control (+1SD), $B = –.0003$, $SE = .0009$, $p = .762$. We next tested whether the interaction between commuting time and trait self-control predicted turnover intention through job satisfaction. We fitted the path from the interaction of commuting time and trait self-control to job satisfaction and the path from job satisfaction to turnover intention (with 10,000 bootstrapped iterations), and found that the indirect path from commuting time to turnover intention

[4] As in Study 1, we re-ran all analyses without control variables, and the results remained unchanged in terms of direction and significance.

through job satisfaction was statistically significant for employees with low trait self-control ([-.0074.; .-.0012]), and not for those with high trait self-control ([-.0026; .0021]). The results conceptually replicate the findings from Study 1.[5]

Insert Table 4 about here

In Hypothesis 2, we suggested that employees with greater work-family conflict are more likely to be negatively affected by longer commutes. To test this, we regressed the interaction between commuting time and work-family conflict on job satisfaction. The results showed a statistically significant effect (B = -.0013, SE = .0006, p = .044; see Table 5; ΔR^2 relative to model without interaction term: .002). Subsequent simple slopes analysis suggested that for employees with less work-family conflict, the relationship between commuting time and job satisfaction was not statistically significant (B = .0001, SE = .0009, p = .973). However, for employees with greater work-family conflict, longer commutes had a statistically significant relationship with job satisfaction (B = -.0026, SE = .009, p = .005), such that a longer commute was related to lower job satisfaction. We next investigated whether the interaction between commuting time and work-family conflict predicted turnover intention through job satisfaction (with 10,000 bootstrapped iterations) and found that the indirect path from commuting time to turnover intention through job satisfaction was statistically significant for employees with greater work-family conflict ([-.0056; -.0003]), and not for those with less work-family conflict ([-.0016; .0019]). These results provide support for Hypothesis 2.

Insert Table 5 about here

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[5] We also examined whether those employees with lengthy commutes reported lower levels of job satisfaction. Unlike in Study 1, we found a statistically significant relationship (B = –.0022, SE = .0007, p = .0037), such that the longer employees commuted, the less satisfied they were with their jobs. We again tested for a quadratic effect of commute time on job satisfaction but found no evidence (p = .56).

We next aimed to test Hypothesis 3, which stated that role-clarifying prospection moderates the relationship between commuting time and job satisfaction. To provide evidence for this hypothesis, we conducted a regression with commuting time as the independent variable, role-clarifying prospection as the moderator, and job satisfaction as the dependent variable and found a statistically significant interaction effect (B = .0013, SE = .0006, p = .042; see Table 6; ΔR^2 relative to model without interaction term: .002). Subsequent analyses showed that the relationship between commuting time and job satisfaction was statistically significant for employees with low levels of role-clarifying prospection (–1SD), B = –.0025, SE = .0010, p = .009, and not for those with high levels (+1SD), B = .0002, SE = .0009, p = .865. We next tested whether the interaction between commuting time and role-clarifying prospection predicted turnover intention through job satisfaction. We fitted the path from the interaction of commuting time and role-clarifying prospection to job satisfaction and the path from job satisfaction to turnover intention (with 10,000 bootstrapped iterations) and found that the indirect path from commuting time to turnover intention through job satisfaction was statistically significant for employees with low role-clarifying prospection ([-.0068; -.0003]), and not for those with high role-clarifying prospection ([-.0016; .0024]). These results provide support for Hypothesis 3.

Insert Table 6 about here

In Hypothesis 4, we suggested that employees with higher trait self-control are more likely to engage in role-clarifying prospection during their commute. A regression with trait self-control as the independent variable and role-clarifying prospection as the dependent variable showed that trait self-control was positively related to employees' likelihood of engaging in prospection, B = .1762, SE = .0292, $p < .001$, see Table 7. Hypothesis 4 was thus supported.

Insert Table 7 about here

Lastly, to provide support for Hypothesis 5, we tested whether the interaction of commuting time and role-clarifying prospection is further qualified by the extent of work-family conflict that participants experience. To investigate this, we draw on Iacobucci et al. (2015), who suggest that median splits can be preferable in situations where multicollinearity between predictor variables is low, a condition that the current setting fulfills. We therefore conducted a median split of the sample by work-family conflict and re-ran the same regression as before, with commuting time as the independent variable, role-clarifying prospection as the moderator, and job satisfaction as the dependent variable. The analysis showed that the interaction between commuting time and role-clarifying prospection was not statistically significant for participants with less work-family conflict (B = -.0001, SE = .0008, p = .971). However, the interaction between commuting time and role-clarifying prospection was marginally significant for participants with greater work-family conflict (B = .0020, SE = .0011, p = .066), such that for this group of employees, the relationship between commuting time and job satisfaction was statistically significant for employees with low (–1SD) levels of role-clarifying prospection (B = –.0035, SE = .0015, p = .021), and not for those with high levels of role-clarifying prospection (+1SD), B = .0005, SE = .0017, p = .766. Subsequent analysis showed that for employees with greater work-family conflict, the indirect path from commuting time to turnover intention through job satisfaction (with 10,000 bootstrapped iterations) was statistically significant when they engaged in low levels of role-clarifying prospection ([-.0089; -.0023]), and not when they engaged in high levels of role-clarifying prospection ([-.0037; .0045]). Thus, engaging in role-clarifying prospection was especially effective in offsetting the negative effects of longer commutes for participants with higher levels of work-family conflict, providing support for Hypothesis 5.

Summary and Discussion

In Study 2, we aimed to provide further empirical evidence for the boundary work prompted by the commute to work. Replicating the results from Study 1, we found that the relationship between lengthy commutes and job satisfaction is moderated by levels of trait self-control, such that higher levels of trait self-control attenuate the negative effect of lengthy commutes (Hypothesis 1). Second, we found that the aversive effects of lengthy commutes are stronger for employees with greater work-family

conflict (Hypothesis 2). In line with our theory, we further found that lengthy commutes are less aversive for employees who engage in role-clarifying prospection (Hypothesis 3). Finally, and as expected, employees with higher trait self-control engage in more role-clarifying prospection (Hypothesis 4), and role-clarifying prospection has a stronger ameliorating effect for employees with greater work-family conflict (Hypothesis 5). Potential concerns arising from common method variance—given that all data were collected at one time point—are somewhat alleviated as we tested interaction effects which reduce the potential influence of common method variance on our results (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

While Studies 1 and 2 provide support for our key hypotheses, one concern pertaining to potential reverse causality remains. Both prior research and correlations in the current studies indicate that individuals with higher levels of trait self-control are also more likely to report higher job satisfaction (see also de Ridder et al., 2012, for a more comprehensive review). Because thinking about their work may also be more enjoyable for employees with higher trait self-control, they may spend more time during their commute to work engaging in role-clarifying prospection. We provided analyses controlling for performance (in Studies 1 and 2) and hierarchy level (Study 1) to show that the moderating effect of trait self-control on the relationship between commuting time and job satisfaction holds even when accounting for performance and rank. To explicitly address the issue of reverse causality, we designed Study 3, in which individuals were randomly assigned to a condition where they were prompted to engage in role-clarifying prospection.

STUDY 3

Is role-clarifying prospection a boundary management strategy that all commuters can employ to counter the detrimental effects of commuting on job satisfaction? The goals of Study 3 were to generalize the findings of Studies 1 and 2 and to provide causal evidence in support of the idea that role-clarifying prospection, as a boundary management strategy, can offset the negative effect of commute length on job satisfaction and turnover (Hypothesis 3), particularly for employees with greater work-family conflict (Hypothesis 5). The only aspect that differed between employees was the random assignment to

conditions, which allows us to explore the causal direction we propose. We designed four experimental conditions to investigate whether engaging in role-clarifying prospection during the morning commute offsets the aversive effects of lengthy commutes. Contrasting the role-clarifying prospection condition with three control conditions allowed us to test whether employees can offset commuting-related detriments by engaging in role-clarifying prospection.

Method

Sample and Procedures. We recruited full-time employees in collaboration with ClearVoice, a professional online survey recruiter, for a study that ran over the course of four weeks (see Figure 3 for timeline). A total of 443 of the 600 invited employees (M_{age} = 42.23, SD_{age} = 10.01; 47.5% female) provided complete responses, with a final response rate of 74%. To address possible problems with self-selection, we compared the demographic information provided by respondents and non-respondents, and found no difference in age (*non-respondents' M* = 42.25, *SD* = 10.11, *t*(598) = –.10, *ns*) or gender (*non-respondents' M* = 1.51, *SD* = .50, *t*(598) = .67, *ns*).

Insert Figure 3 about here

In phase 1, participants received an initial online survey that included questions about their commute, trait self-control, job satisfaction, turnover intention, demographics, and control variables. In phase 2, participants received daily text-message prompts on their mobile phone approximately 30 minutes after arriving at their workplace every workday for four weeks. The prompts invited them to answer a question regarding the extent to which they engaged in role-clarifying prospection on their commute to work. Participants' responses to the daily online surveys served as a baseline and manipulation check for the intervention conducted in phase 3.

In phase 3, two weeks after the start of the study, participants were randomly allocated to one of four experimental conditions: either the treatment condition (role-clarifying prospection) or one of the

three control conditions (role-unrelated thoughts, mixed, or no prompt). All participants received a text message prior to their commute to work, but the content of this text message differed by condition.

In the *role-clarifying prospection condition*, instructions were based on sentences that we collected from commuters that were coded as role-clarifying prospection in a prior pilot study. Employees were specifically asked to engage in role-clarifying prospection with the following prompt: "Many people find it helpful to focus on making a plan of their workday, or week ahead and reflect on how these plans will help them achieve their personal and career goals. We would like to invite you to do that during your commute, too. Ask yourself, for example, what are the strategies you have for the week to be productive? What steps can you take today and during this week to get closer to your work goals, as well as your personal and career goals? Please use your commuting time to focus on your goals and make plans about what to do."

We prompted participants in the *role-unrelated thoughts condition* to use their commuting time to engage in thoughts and activities that they find enjoyable. Specifically, employees received the following prompt: "Many people find it helpful to do something enjoyable and relaxing on their way to work. We would like to invite you to do that during your commute, too. For example, you could listen to music, read the news, or catch up on social media—anything that you inherently enjoy is fine. Please use your commuting time to relax and do something enjoyable."

In the *mixed condition*, we highlighted that employees could use the commute for both role-clarifying prospection and relaxing thoughts and activities. The two are not mutually exclusive (Kluger, 1998); therefore, a combination of both serves as a valid comparison to role-clarifying prospection or role-unrelated thoughts alone. In the mixed condition, employees were sent the following text message: "Many people find a combination of activities helpful. They make a plan of their workday or week ahead and reflect on how these plans will help them achieve their personal and career goals, and they also do something enjoyable and relaxing on their way to work. We would like to invite you to do that during your commute, too. Ask yourself, for example, what are the strategies you have for the week to be productive? What steps can you take today and during this week to get closer to your work goals, as well

as your personal and career goals? Also do something that you inherently enjoy such as listening to music, reading the news, or catching up on social media. Please allocate some of your commuting time to focusing on your goals and making plans about what to do, and some to relaxing and doing something enjoyable."

Finally, in the *no-prompt condition*, participants received a text message that did not contain any particular prompt and that told them to do what they normally do during their commute.

In phase 4, all participants were asked to fill out a final survey that once again measured their level of job satisfaction and turnover intention.

Measures

Manipulation Checks. We measured the extent to which employees engaged in role-clarifying prospection on their commute to work in our daily surveys before and after the intervention. Consistent with Study 2 and our theoretical model, participants received a prompt each workday, approximately 30 minutes after arriving at their workplace, with the question "To what extent did you think about work during your commute to work today?" In addition, to measure role-unrelated thoughts, participants were asked "To what extent did you engage in pleasurable thoughts during your commute to work today?" Participants responded to both questions on a scale ranging from 1 (not at all) to 5 (to a large extent).

Commuting Time. We measured the length of employees' commute in the initial survey. Commuting time ranged from 16 to 180 minutes, with an average of 51.54 minutes (SD = 32.15).[6]

Trait Self-Control. We assessed employees' trait self-control in the initial survey using the same 10-item measure as in our prior studies (Tangney et al., 2004; α = .83).

Work-Family Conflict. We collected participants' responses in the first phase to measure work-family conflict with the same two items as in Study 2 (r = .73; Netemeyer et al., 1996).

[6] We removed one outlier, a participant who indicated that they commuted 270 minutes, as they were nearly three standard deviations away from the next-closest participant. Keeping this participant in our sample does not alter any of our results.

Job Satisfaction. We measured job satisfaction in both the initial and the final surveys using a 3-item scale, as in Studies 1 and 2 (Morris & Venkatesh, 2010; α = .82).

Turnover Intention. We measured employees' desire to quit their organization in both the initial and the final surveys using the same 2-item scale as in Study 2 (Chen et al., 2011; r = .87).

Control Variables. We controlled for employees' age and gender as in the first and second studies, given their link to job satisfaction and turnover. In addition, we asked participants to indicate their levels of positive and negative trait affectivity (PANAS; Watson & Clark, 1999), as both are linked with job satisfaction (Connolly & Viswesvaran, 2000; Shaw, 1999). Finally, we asked employees to report how they commute. Most participants drove to work (85.41%), followed by train (5.08%), bus (4.36%), and car travel as a passenger (1.74%) as means of transportation to work.

Results

Table 8 reports means, standard deviations, and correlations for the variables in the initial survey.

Insert Table 8 about here

Analysis Strategy. We first checked whether there were any differences in commuting time, trait self-control, or job satisfaction between conditions prior to the intervention. This was not the case, suggesting that the randomized allocation of participants to the four conditions had created four groups of participants that were not statistically significantly different from each other. In order to examine the causal effect of our interventions, we aggregated participants' responses on the daily measures over the course of weeks 1 and 2 and then proceeded to do the same for weeks 3 and 4 in all our analyses.

Manipulation Checks. We tested whether there were differences between conditions in terms of the extent to which participants engaged in role-clarifying prospection or role-unrelated thoughts on their

commute to work *prior* to the intervention. We did not find significant differences, suggesting that the baseline for each group of participants was not different.[7]

Next, we examined whether there were any differences between the treatment and the three control conditions in terms of the extent to which participants engaged in role-clarifying prospection on their commute to work *after* the intervention. We first dummy-coded each condition and then conducted a linear regression with conditions as the independent variable and role-clarifying prospection in weeks 3 and 4 as the dependent variable. As Table 9 shows, we found that in comparison to the no-prompt condition, role-clarifying prospection was higher in the condition that prompted role-clarifying prospection (B = .20, SE = .08, p = .02), as expected, and lower in the condition that prompted role-unrelated thoughts (B = –.20, SE = .08, p = .02). In addition, role-clarifying prospection was not statistically significantly different between the no-prompt condition and the mixed condition (B = .03, SE = .08, p = .70). Thus, our manipulation was successful in increasing levels of role-clarifying prospection during the morning commute, but only in the condition that prompted role-clarifying prospection alone. We also ran analyses controlling for role-clarifying prospection in weeks 1 and 2, and the results did not change in terms of direction or significance.

We repeated the same analysis to test if there were any differences between conditions in terms of the extent to which participants engaged in role-unrelated thoughts on their commute to work *after* the intervention. In comparison to the no-prompt condition, only participants in the role-unrelated thoughts condition indicated higher levels of role-unrelated thoughts (B = .21, SE = .08, p = .01); conversely, there was no statistically significant difference for the role-clarifying prospection (B = .01, SE = .08, p = .90) or

[7] We checked whether participants with higher levels of trait self-control would be more likely to engage in role-clarifying prospection *prior* to the intervention. We averaged responses from weeks 1 and 2, and we specified a linear regression with trait self-control as the independent variable and role-clarifying prospection in weeks 1 and 2 as the dependent variable. We found a statistically significant effect of trait self-control on role-clarifying prospection prior to the intervention (B = .14, SE = .07, p = .04), such that all participants with higher levels of trait self-control were more likely to engage in role-clarifying prospection prior to the intervention. This finding was expected based on Hypothesis 4. Next, we checked the distribution of trait self-control across the four experimental conditions and found no significant differences, suggesting that trait self-control was equally distributed across the four conditions, as expected from the randomized allocation of participants to the conditions (Hauser, Linos, & Rogers, 2017).

mixed (*B* = .05, *SE* = .08, *p* = .52; see Table 9) condition. We also ran analyses controlling for role-unrelated thoughts in weeks 1 and 2, and the results did not change in terms of direction or significance.

Insert Table 9 about here

Hypothesis Testing. We next tested Hypothesis 3, investigating whether participants who were prompted to engage in role-clarifying prospection were less negatively affected by longer commutes than participants in the other conditions. We conducted a regression analysis with commuting time as the independent variable; condition as the moderator (coded using the Helmert method); job satisfaction at time point 2 as the dependent variable; and age, gender, and trait affectivity (positive and negative) as control variables.[8] This analysis reveals that the relationship between commuting time and job satisfaction following the intervention was statistically significant for two conditions in comparison to the no-prompt condition. First, for employees in the role-clarifying prospection condition, commuting time was statistically significantly related to *higher* levels of job satisfaction at time point 2 (*B* = .012, *SE* = .005, *p* = .02; see Table 10). This finding provides support for Hypothesis 3. Second, for employees in the role-unrelated thoughts condition, commuting time was marginally associated with *lower* levels of job satisfaction (*B* = –.011, *SE* = .006, *p* = .08). For those in the mixed condition, there was no statistically significant effect of the condition on job satisfaction (*B* = .005, *SE* = .005, *p* = .31).

Insert Table 10 about here

We next tested the effect of the intervention on turnover intention through job satisfaction, comparing participants in the two conditions that differed from each other in role-clarifying prospection

[8] Hayes and Montoya (2017) suggest using the Helmert coding method, which allows comparison of one group to all other groups that are higher on a categorical variable in a path-analytic approach. When using the Helmert coding method, it is assumed that the arbitrarily numerically coded variable corresponds in ascending ordinality to the multicategorical variable of interest.

and role-unrelated thoughts, i.e., participants in the role-clarifying prospection condition with participants in the role-unrelated thoughts condition. To test for the indirect effect, we ran a mediation analysis for this subset of participants ($N = 221$), using the interaction between condition and commuting time as the predictor variable, job satisfaction as the mediator, and turnover intention as the outcome variable. We found a marginally significant indirect effect, $CI_{90\%} = [.0069; .0830]$; $p = .06$, such that participants in the role-unrelated thoughts condition were more likely to indicate higher turnover intention than were participants in the role-clarifying prospection condition.

We repeated all analyses without control variables, and the results remained unchanged in terms of direction and significance. In addition, we re-ran all analyses with and without entering job satisfaction at baseline as a control variable, and this did not alter our results.[9]

Next, we tested whether the effect of role-clarifying prospection is further moderated by the extent of work-family conflict that participants experience, in line with Hypothesis 5. To do so, we conducted a median split of participants by work-family conflict and re-ran the same regression as before, with commuting time as the independent variable, condition as the moderator (coded using the Helmert method), and job satisfaction at time point 2 as the dependent variable. The analysis reveals that for participants with less work-family conflict, there was no statistically significant interaction between commuting time and the role-clarifying prospection condition ($B = .011$, $SE = .010$, $p = .27$). However, for participants with greater work-family conflict, the interaction between commuting time and the role-clarifying prospection condition was statistically significant ($B = .020$, $SE = .008$, $p = .017$), such that participants in this condition who experienced greater work-family conflict reported *higher* levels of job satisfaction with longer commutes. No other interaction between commuting time and condition was

[9] Additionally, we examined the possibility that commuters' mode of transport influences employees' ability to engage in role-clarifying prospection, and we found no statistically significant relationship between the type of commuting and role-clarifying prospection ($B = .02$, $SE = .03$, $p = .46$). We next tested whether mode of transport influences the relationships between our manipulation, commuting time, job satisfaction, and turnover intention. We ran additional analyses either controlling for mode of transport or computing additional interaction terms with mode of transport and found no significant differences in effects across different modes of transport (all $ps > .25$). These results suggest that our hypotheses were supported regardless of the mode of transport that employees used to commute to work.

statistically significant in this analysis. These analyses indicate that the intervention to engage in role-clarifying prospection was particularly effective in offsetting the negative effects of longer commutes for participants who reported higher levels of work-family conflict, in line with Hypothesis 5.

Summary and Discussion

In Study 3, we found causal evidence that role-clarifying prospection attenuates the negative effect of commuting time on job satisfaction and turnover intention. Specifically, after we prompted some commuters to engage in role-clarifying prospection during their daily commute to work for two weeks, these individuals did not suffer decrements in job satisfaction with lengthy commutes, in contrast to commuters in the three control conditions. Thus, our findings suggest that role-clarifying prospection can be employed as a boundary management strategy by individuals with varying levels of trait self-control to buffer the aversive effects of lengthy commutes. In addition, employees who experience greater work-family conflict are more likely to benefit from engaging in role-clarifying prospection.

Participants in the mixed condition were not more likely to engage in increased role-clarifying prospection or role-unrelated thoughts. It is possible that commuters in the mixed condition were unable to engage in both role-clarifying prospection and role-unrelated thoughts. Alternatively, the two different types of thoughts might have cancelled each other out, leading to no difference in the extent to which participants engaged in role-clarifying prospection. In any case, participants in the mixed condition were no less aversively affected by longer commutes, as compared to those in the role-clarifying prospection condition, and showed a similar pattern of results as participants in the no-prompt condition. Similarly, participants who engaged in role-unrelated thoughts were more likely to be negatively affected by longer commutes.

In addition, the results of Study 3 provide further support for the relatively stronger effects of the intervention of role-clarifying prospection on employees with greater work-family conflict. In line with Hypothesis 5 and our theoretical framework, we found that employees who experience greater work-family conflict face larger role transitions during their morning commute. By prompting them to engage in role-clarifying prospection, the experimental manipulation allowed them to more effectively transition

from their home role to their work role, resulting in a reduction of the negative impact of lengthy commutes.

GENERAL DISCUSSION

Integrating theories of boundary work, self-control, and work-family conflict in the psychological and organizational sciences, we proposed that role-clarifying prospection can buffer against the negative consequences of lengthier commutes on job satisfaction and turnover intentions. Across three studies, we provided a novel perspective on the relationship between commuting time and job-related outcomes. We theorized and found that longer commutes were more aversive for employees with lower trait self-control and greater work-family conflict, leading to decreased job satisfaction and increased turnover. However, role-clarifying prospection—a boundary management strategy that facilitates the role transition during the commute to work—attenuated the relationship between lengthy commutes and key job outcomes (job satisfaction and employee turnover). Employees with higher levels of trait self-control were more likely to engage in role-clarifying prospection, and employees who experienced greater work-family conflict were more likely to benefit from engaging in this type of boundary management strategy.

Theoretical Contribution

Our research advances the literature on boundary theory. We posited that work-related outcomes are affected not only by what happens *at* work but also by what happens *outside* of work. A wealth of research, especially in the field of work recovery, has investigated how what employees do *during* (Trougakos & Hideg, 2009; Trougakos, Hideg, Cheng, & Beal, 2014) or *after* work (Lanaj et al., 2014; Sonnentag, 2012; Sonnentag, 2001, 2003) can affect them. After all, many predictors of job satisfaction and turnover, such as psychological detachment from work and work-family conflict, fall into these categories (Edwards & Rothbard, 2000; Kubicek & Tement, 2016; Rothbard et al., 2005; Sonnentag, 2012). Our research adds to these insights by demonstrating that the time period *before* work can help offset the negative effects of lengthy commutes and thus increase the job satisfaction of employees and reduce turnover.

Specifically, we challenge the notion that the time spent on commuting is necessarily harmful and

should thus have negative consequences for our job attitudes, conceptualizing commuting as a unique opportunity for employees to engage in boundary work to facilitate the transition from their home role to their work role. As a result, our research furthers our understanding of a type of daily boundary work between home and work by identifying a specific boundary management strategy (i.e., role-clarifying prospection), which in turn reduces the negative consequences arising from longer commutes.

Our theoretical framework also extends boundary theory by highlighting that there may be substantial variance in whether employees can transition effectively from one role to another during their commute. In this sense, our research also offers a novel way of thinking about boundary work (Ashforth et al., 2000) by portraying role transitions as matters of the mind, and suggesting that role-clarifying prospection can help effectively manage role boundaries and psychologically facilitate work role entry. Here, we identify two theoretically relevant boundary conditions: trait self-control and work-family conflict.

First, we advanced boundary theory by integrating perspectives from research on self-control (Baumeister et al., 1998; de Ridder et al., 2012). Given that role transitions represent an effortful process that inherently involves self-regulation, prior research has called for a deeper understanding of the role of self-regulatory resources as a boundary management strategy (Allen, Cho, & Meier, 2014). Our finding that employees with higher levels of trait self-control are less negatively affected by longer commutes adds an important nuance to previous literature which offered incomplete insights into the relationship between commuting length and job satisfaction (e.g., Chatterjee et al., 2017; Zhang & Feinzig, 2016). In addition, our work extends the literature on self-control by illustrating that individuals with higher levels of trait self-control are more likely to identify situations where deploying cognitive strategies that allow them to achieve their goals is applicable (Myrseth & Fishbach, 2009).

Second, the present research explored how work-family conflict shapes the commute to work and has spillover effects on work-related outcomes, such as job satisfaction and turnover intention. Past research on work-family conflict focused primarily on how assuming one role (work or family) may interfere with accomplishing the other role. Cross-role thoughts can represent discrete episodes where an

individual currently engaged in one role, such as work, experiences off-topic thoughts regarding a different role, such as family (Smit et al., 2016), and can lead to negative outcomes for employees (Dumas & Smith, 2017; Lanaj et al., 2014; Sonnentag, 2001; Sonnentag & Binnewies, 2013). Our work broadens the scope of this research by examining a possible spillover of work-family conflict into individuals' experience of role transitions during their commute. Specifically, our research suggests that employees, and particularly those with greater work-family conflict may have some agency in ameliorating the aversive effects of lengthy commutes (Ashforth et al., 2000) via role-clarifying prospection.

These individual differences are critical in understanding the role that the commute plays in how employees go through their home and work life. By shedding light on the ways in which these factors modulate the relationship between commuting time and job-related outcomes, we move beyond the view that any additional time spent on commuting must be taxing, and provide a more nuanced view on when commuting becomes more or less depleting, and how it spills over into job-related outcomes.

Limitations and Future Directions

Our studies are subject to several limitations that suggest directions for future research. First, our studies do not directly test the micro-mechanism through which commuting time increases the aversive experience of role co-activation. Future research could explore whether coactivating two distinct roles is aversive because it is associated with increased cognitive load (Robin et al., 2018). Viewed from this perspective, role-clarifying prospection takes on particular importance as it may facilitate role entry by increasing the ease with which employees can access their work role (Altmann & Trafton, 2002; Rusting & DeHart, 2000). We encourage future research to further explore the cognitive mechanisms through which role-clarifying prospection aids in making lengthy commutes less aversive.

Second, several mechanisms may underlie the ameliorating effects of trait self-control on the relationship between commuting time and job satisfaction. One possible mechanism linking trait self-control with reduced aversive impacts of lengthy commutes might be emotion regulation, or an individual's ability to control how he or she feels, particular in challenging situations (Gross, 1998; Gross

& John, 2003). It could be that individuals with higher trait self-control—because they are better able to control how they feel—are more adept at engaging in role-clarifying prospection. A second possibility concerns individuals' ability to manage stressors, such as those posed by commutes; that is, individuals with greater trait self-control may be less likely to view lengthy commutes as a source of stress (LePine, Podsakoff, & LePine, 2005; Podsakoff, LePine, & LePine, 2007). From this perspective, lengthy commutes would only be aversive if employees viewed them as a hindrance. While the results of studies 1 and 2 hold even when including job stress as an additional control variable, we encourage further work to unpack these additional possible explanations in more detail.

Third, we note two important concerns with Study 3. First, the study only tested role-clarifying prospection in terms of work/goal-planning, but there are other forms of role-clarifying prospection that employees could adopt that could be helpful. For example, role-clarifying prospection could take the form of merely thinking of the work day ahead *without* planning. This may already be sufficient given that even this type of role-clarifying prospection may be sufficient in activating a work role, minimize the co-activation of identities, and facilitate role entry. Second, Study 3 does not shed insight into whether planning about goals that are *unrelated* to work could also attenuate the negative effects of lengthy commutes. Our theory would predict that this may not be sufficient, given that planning about unrelated goals to work may not minimize the co-activation of identities (or, indeed, strengthen it), and thus may not facilitate role entry. We encourage future research to further disentangle the various possible operationalizations of role-clarifying prospection to more adequately pinpoint how and when thinking about an upcoming role is beneficial in promoting role entry.

Lastly, we discuss the generalizability of our findings. Throughout our studies, we focused our investigation on the commute *to* work. Our conceptualization of commuting as the co-activation of home and work roles that provides an opportunity for role transition does not differ substantially for the commute *from* work, but the direction of the role transition changes. Whereas role-clarifying prospection serves as a boundary management strategy unilaterally on the way to work, it is likely that home-related prospection is the counterpart for the commute back from work. That is, evening commutes might benefit

from home-related prospection regarding activities in one's private life, such as making plans for the evening (e.g., what to cook for dinner, what book to read to the children; see also Dumas & Smith, 2017). This transition may be fraught if the role transition is not completed by the time of arrival. For example, if individuals continue to ruminate about work-related problems at home, they may not fully enact their home role. In this case, role-unrelated thoughts—because they are distinctly non-work related—could help employees to transition during their commute back to their home-related role.

Similarly, although we found no differences in our pattern of results across different commuting types in Study 3, future research may need to take a broader perspective on how employees commute. The null results that we found may in large part be driven by the lack of variance in the commuting types of employees in our sample: over 85% of participants commuted by car. How employees commute may in fact have substantial implications, particularly when those commuting types drain employees' ability to engage in role-clarifying prospection and thus affect the quality of their thoughts. Future research might consider various naturally occurring commuting distractions (such as traffic, background music or noise, and other commuters) as well as other possible commuting activities in which employees may engage (such as socializing or learning).

While our field experiment allowed us to shed further light onto the direction of the causal path, the longevity of the intervention remains unclear. In Study 3, participants received daily prompts to engage in role-clarifying prospection, and the dependent variables of interest were assessed immediately after the termination of the intervention. The sustainability of the effect is especially a concern given that individuals with lower levels of trait self-control tend to have difficulties in establishing and maintaining beneficial routines (de Ridder et al., 2012; Galla & Duckworth, 2015); some studies, however, have had success in teaching individuals to adopt cognitive strategies and deploy them in appropriate situations (Duckworth, Gendler, & Gross, 2016; Yeager et al., 2018). Future research could investigate whether the current intervention has sustained effects and could help individuals, particularly those with lower trait self-control, to engage in role-clarifying prospection when commuting to work. In addition, in extending the intervention, future research could also test whether particular types of role-clarifying prospection are

linked to varied outcomes. For example, role-clarifying prospection could involve both low-level construal (such as focusing on what employees will do when they get to work) and a high-level construal (such as focusing on long-term career goals), a distinction subsequent research could further explore.

Practical Implications

Our research offers valuable practical insights for both business leaders and employees. For leaders, the findings highlight that commute length might have variable effects on their employees. When employees have lower levels of trait self-control, or high degrees of work-family conflict, longer commutes may place them at a higher risk of being less satisfied with their job, and subsequently leave their job. The popular press is quick to warn employees that long commutes have negative consequences, but some employees—particularly those with high trait self-control—may stand to gain more from the benefits of living farther away from work by offsetting the negative effects of commuting. Leaders can help manage especially draining commutes for employees with lower trait self-control and higher work-family conflict, either by encouraging role-clarifying prospection during commuting or by suggesting ways to reduce commuting time, such as increased teleworking.

For employees, our findings highlight that although commuting time may be outside their control, they are nonetheless in charge of their commute. Commuting is not *per se* a chore to endure but can also be viewed as a useful time period. Being able to set aside some time during one's commute for role-clarifying prospection can turn a time period that many employees rate as their least desirable of the day into a less aversive and even a potentially beneficial one. Furthermore, our research highlights the need to consider boundaries between home and work. Engaging in role-clarifying prospection while commuting can facilitate work role entry and improve work-related outcomes.

Conclusion

The logic of the billboards that claim "If you lived here, you'd be home by now" also works in the reverse—"If you worked elsewhere, you'd be home sooner"—such that lengthy commutes may prompt employees to desire leaving their job. Our theory and research suggest that role transitions are at least to some extent at the discretion of the employee and that some employees are better able to manage

the interface between home and work that commuting provides. While commuting is a ubiquitous and widespread experience in employees' everyday life, the effects of lengthy commutes are more nuanced than previously stated. Rather than being passive actors, employees can actively shape whether the commute from home to work can serve as an effective role transition.

REFERENCES

Ahrentzen, S. B. 1990. Managing Conflict by Managing Boundaries. ***Environment and Behavior***, 22(6): 723–752.

Alahmadi, S., Buttrick, N. R., Gilbert, D. T., Hardin, A. M., Westgate, E. C., et al. 2017. You Can Do It If You Really Try: The Effects of Motivation on Enjoying One's Own Thoughts. ***Motivation and Emotion***, 41(5): 545–561.

Altmann, E. M., & Trafton, J. G. 2002. Memory for goals: An activation-based model. ***Cognitive Science***, 26(1): 39–83.

Ashforth, B. E. 2000. ***Role transitions in organizational life: An identity-based perspective***. New York, NY: Macmillan.

Ashforth, B. E., Kreiner, G. E., & Fugate, M. 2000. All in a Day's Work: Boundaries and Micro Role Transitions. ***Academy of Management Review***, 25(3): 472–491.

Bacharach, S. B., Bamberger, P., & Conley, S. 1991. Work/home conflict among nurses and engineers: Mediating the impact of role stress on burnout and satisfaction at work. ***Journal of Organizational Behavior***, 12(1): 39–53.

Cesario, J., Grant, H., & Higgins, E. T. 2004. Regulatory Fit and Persuasion: Transfer From "Feeling Right." ***Journal of Personality and Social Psychology***, 86(3): 388–404.

Chatterjee, K., Clark, B., & Martin, A.Davis, A. 2017. ***The Commuting and Wellbeing Study: Understanding the Impact of Commuting on People's Lives.***

Chen, G., Ployhart, R. E., Thomas, H. C., Anderson, N., & Bliese, P. D. 2011. The Power of Momentum: A new model of dynamic relationships between job satisfaction change and turnover intentions. ***Academy of Management Journal***, 54(1): 159–181.

Clark, A. E. 1997. Job satisfaction and gender: Why are women so happy at work? ***Labour Economics***, 4(4): 341–372.

Clark, A., Oswald, A., & Warr, P. 1996. Is job satisfaction U-shaped in age? ***Journal of Occupational and Organizational Pshychology***, 69: 57–81.

Connolly, J. J., & Viswesvaran, C. 2000. The role of affectivity in job satisfaction: A meta-analysis. ***Personality and Individual Differences***, 29(2): 265–280.

Converse, B. A., Juarez, L., & Hennecke, M. 2019. Self-control and the reasons behind our goals. ***Journal of Personality and Social Psychology***, 116(5): 860–883.

Cotton, B. 2018, April 30. How long is the daily work commute for the average Londoner? ***Business Leader***. https://www.businessleader.co.uk/how-long-is-the-daily-work-commute-for-the-average-londoner/44325/.

Davis, K. D., Gere, J., & Sliwinski, M. J. 2017. Investigating the work–family conflict and health link: Repetitive thought as a mechanism. ***Stress and Health***, 33(4): 330–338.

de Ridder, D. T. D., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. 2012. Taking stock of self-control: a meta-analysis of how trait self-control relates to a wide range of behaviors.

Personality and Social Psychology Review, 16(1): 76–99.

Demerouti, E., Bakker, A. B., & Schaufeli, W. B. 2005. Spillover and crossover of exhaustion and life satisfaction among dual-earner parents. ***Journal of Vocational Behavior***, 67(2): 266–289.

Duckworth, A. L., Gendler, T. S., & Gross, J. J. 2016. Situational Strategies for Self-Control. ***Perspectives on Psychological Science***, 11(1): 35–55.

Dumas, T. L., & Sanchez-Burks, J. 2015. The Professional, the Personal, and the Ideal Worker: Pressures and Objectives Shaping the Boundary between Life Domains. ***Academy of Management Annals***, 9(1): 803–843.

Dumas, T. L., & Smith, J. E. P. 2017. The Paradox of Family Structure and Plans After Work: Why Single Childless Employees May be the Least Absorbed at Work. ***Academy of Management Journal***, in press.

Dumas, T. L., & Stanko, T. L. 2017. Married with children: How family role identification shapes leadership behaviors at work. ***Personnel Psychology***, 70(3): 597–633.

Edwards, J. R., & Rothbard, N. P. 2000. Mechanisms linking work and family: Clarifying the relationship between work and family constructs. ***Academy of Management Review***, 25(1): 178–199.

Evans, P., & Bartolomé, F. 1984. The changing pictures of the relationship between career and family. ***Journal of Organizational Behavior***, 5(1): 9–21.

Festinger, L. 1957. ***A theory of cognitive dissonance***. Evanston, IL: Row Peterson.

Galla, B. M., & Duckworth, A. L. 2015. More Than Resisting Temptation: Beneficial Habits Mediate the Relationship Between Self-Control and Positive Life Outcomes. ***Journal of Personality and Social Psychology***, 109(3): 508–525.

Glavin, P., Schieman, S., & Reid, S. 2011. Boundary-Spanning Work Demands and Their Consequences for Guilt and Psychological Distress. ***Journal of Health and Social Behavior***, 52(1): 43–57.

Greenhaus, J., & Beutell, N. J. 1985. Sources of conflict between work and family roles. ***Academy of Management Review***, 10: 76–88.

Griffeth, R. W., Hom, P. W., & Gaertner, S. 2000. A meta-analysis of antecedents and correlates of employee turnover: update, moderator tests, and research implications for the next millennium. ***Journal of Management***, 26: 463–488.

Gross, J. J. 1998. The emerging field of emotion regulation: An integrative review. ***Review of General Psychology***, 2(3): 271–299.

Gross, J. J., & John, O. P. 2003. Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. ***Journal of Personality and Social Psychology***, 85(2): 348–362.

Hauser, O., Linos, E., & Rogers, T. 2017. Innovation with field experiments: Studying organizational behaviors in actual organizations. ***Research in Organizational Behavior***, 37: 185–198.

Hayes, A. F., & Montoya, A. K. 2016. A Tutorial on Testing, Visualizing, and Probing an Interaction Involving a Multicategorical Variable in Linear Regression Analysis. ***Communication Methods and***

Measures, in press.

Hofmann, W., Luhmann, M., Fisher, R. R., Vohs, K. D., & Baumeister, R. F. 2014. Yes, But Are They Happy? Effects of Trait Self-Control on Affective Well-Being and Life Satisfaction. ***Journal of Personality***, 82(4): 265–277.

Hofmann, W., Vohs, K. D., & Baumeister, R. F. 2012. What People Desire, Feel Conflicted About, and Try to Resist in Everyday Life. ***Psychological Science***, 23(6): 582–588.

Hunt, J. W., & Saul, P. N. 1975. The relationship of age, tenure, and job satisfaction in males and females. ***The Academy of Management Journal***, 18(4): 690–702.

Iacobucci, D., Posavac, S. S., Kardes, F. R., Schneider, M. J., & Popovich, D. L. 2015. Toward a more nuanced understanding of the statistical properties of a median split. ***Journal of Consumer Psychology***, 25(4): 652–665.

Ilies, R., Scott, B. A., & Judge, T. A. 2006. The interactive effects of personal traits and experienced states on intraindividual patterns of citizenship behavior. ***Academy of Management Journal***, 49(3): 561–575.

Inzlicht, M., Legault, L., & Teper, R. 2014. Exploring the Mechanisms of Self-Control Improvement. ***Current Directions in Psychological Science***, 23: 302–307.

Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. 2001. The job-satisfaction- job performance relationship: A qualitative and quantitative review. ***Psychological Bulletin***, 127(3): 327–407.

Kahneman, D., & Krueger, A. B. 2006. Developments in the Measurement of Subjective Well-Being. ***Journal of Economic Perspectives***, 20(1): 3–24.

Kalleberg, L., & Loscocco, K. 1983. Aging, values, and rewards: explaining age differences in job satisfaction. ***American Sociological Review***, 48(1): 78–90.

Katz, D., & Kahn, R. L. 1978. ***The social psychology of organizations***. Oxford, England: Wiley.

Kluger, A. N. 1998. Commute variability and strain. ***Journal of Organizational Behavior***, 19: 147–165.

Kneebone, E., & Holmes, N. 2015. ***The growing distance between people and jobs in metropolitan America***. Washington, DC. http://www.brookings.edu/~/media/research/files/reports/2015/03/24-job-proximity/srvy_jobsproximity.pdf.

Kossek, E. E., Noe, R. A., & DeMarr, B. J. 1999. Work-family role synthesis : Individual and organizational determinants. ***International Journal of Conflict Management***, 10(2): 102–129.

Kubicek, B., & Tement, S. 2016. Work intensification and the work-home interface: The moderating effect of individual work-home segmentation strategies and organizational segmentation supplies. ***Journal of Personnel Psychology***, 15(2): 76–89.

Lanaj, K., Johnson, R. E., & Barnes, C. M. 2014. Beginning the Workday Already Depleted? Conseqeuences of Late-Night Smartphone Use and Sleep. ***Management Science***, 124(1): 11–23.

LePine, J. A., Podsakoff, N. P., & LePine, M. A. 2005. A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. ***Academy of Management Journal***, 48(5): 764–775.

Lin, B. C., Kain, J. M., & Fritz, C. 2013. Don't Interrupt Me! An Examination of the Relationship Between Intrusions at Work and Employee Strain. ***International Journal of Stress Management***, 20(2): 77–94.

Magen, E., & Gross, J. J. 2010. Getting Our Act Together: Toward a General Model of Self-Control. In R. Hassin, K. N. Ochsner, & Y. Trope (Eds.), ***Self-Control in Society, Mind, and Brain***: 335–353. New York, NY: Oxford University Press.

Morris, M. G., & Venkatesh, V. 2010. Job characteristics and Job satisfaction: Understanding the role of enterprise resource planning system implementation. ***MIS Quarterly***, 34(1): 143–161.

Myrseth, K. O. R., & Fishbach, A. 2009. Self-Control: A Function of Knowing When and How to Exercise Restraint. ***Current Directions in Psychological Science***, 18(4): 247–252.

Neal, D. T., Wood, W., & Drolet, A. 2013. How do people adhere to goals when willpower is low? The profits (and pitfalls) of strong habits. ***Journal of Personality and Social Psychology***, 104(6): 959–975.

Neal, D. T., Wood, W., Labrecque, J. S., & Lally, P. 2011. How do habits guide behavior? Perceived and actual triggers of habits in daily life. ***Journal of Experimental Social Psychology***.

Netemeyer, R. G., Boles, J. S., & McMurrian, R. 1996. Development and validation of work-family conflict and family-work conflict scale. ***Journal of Applied Psychology***, 81: 400–410.

Nippert-Eng, C. 1996. Calendars and keys: The classification of "home" and "work." ***Sociological Forum***, 11(3): 563–582.

Novaco, R. W., & Gonzalez, O. I. 2011. Commuting and well-being. In Y. Amichai-Hamburger (Ed.), ***Technology and Psychological Well-Being***: 174–205. Cambridge, UK: Cambridge University Press.

Novaco, R. W., Kliewer, W., & Broquet, A. 1991. Home environment consequences of commute travel impedance. ***American Journal of Community Psychology,*** 19: 881–909.

Novaco, R. W., Stokols, D., Campbell, J., & Stokols, J. 1979. Transportation, Stress, and Community Psychology. ***American Journal of Community Psychology***, 7(4): 361–380.

Novaco, R. W., Stokols, D., & Milanesi, L. 1990. Objective and Subjective Dimensions Of Travel Impedance as Determinants Of Commuting and Stress. ***American Journal of Community Psychology***, 18(2): 231–257.

OECD. 2017. ***How's Life? 2017: Measuring Well-being***. Paris: OECD Publishing.

Oldenburg, R. 1997. ***The great good place: Cafés, coffee shops, community centers, beauty parlors, general stores, bars, hangouts and how they get you through the day***. New York, NY: Marlowe.

Podsakoff, N. P., LePine, J., & LePine, M. 2007. Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. ***Journal of Applied Psychology***, 92(2): 438–454.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. ***Journal of Applied Psychology***, 88(5): 879–903.

Ramarajan, L., Rothbard, N. P., & Wilk, S. L. 2017. Discordant vs. Harmonious selves: The effects of identity conflict and enhancement on sales performance in employee-customer interactions. ***Academy of Management Journal***, 60(6): 2208–2238.

Rampell, C. 2011, October 14. World of Commuters. ***The New York Times***. New York City, NY. http://economix.blogs.nytimes.com/2011/10/14/world-of-commuters/?_r=0.

Redmond, L. S., & Mokhtarian, P. L. 2001. The positive utility of the commute: Modeling ideal commute time and relative desired commute amount. ***Transportation***, 28(2): 179–205.

Robin, J., Baumann, H. M., & Kotik, J. 2018. Identity coactivation: Person and situation influences and the mediating role of experienced conflict. ***Journal of Applied Social Psychology***, 48(8): 411–423.

Rothbard, N. P., & Dumas, T. L. 2006. Research perspectives: Managing the work-home interface. In F. Jones, R. J. Burke, & M. Westman (Eds.), ***Work-life balance: A psychological perspective***: 71–89. New York: Psychological Press.

Rothbard, N. P., Phillips, K. W., & Dumas, T. L. 2005. Managing Multiple Roles: Work-Family Policies and Individuals? Desires for Segmentation. ***Organization Science***, 16(3): 243–258.

Rothbard, N. P., & Ramarajan, L. 2009. Checking Your Identities at the Door? Positive Relationships Between Nonwork and Work Identities. In L. M. Roberts & J. E. Dutton (Eds.), ***Exploring Positive Identities and Organizations: Building a Theoretical and Research Foundation***. New York, NY: Routledge.

Rothbard, N. P., & Wilk, S. L. 2011. Waking Up on the Right or Wrong Side of the Bed: Start-of-Workday Mood, Work Events, Employee Affect, and Performance. ***Academy of Management Journal***, 54: 959–980.

Rusting, C. L., & DeHart, T. 2000. Retrieving positive memories to regulate negative mood: Consequences for mood-congruent memory. ***Journal of Personality and Social Psychology***, 78(4): 737–752.

Schaffer, B. S., & Riordan, C. M. 2003. A Review of Cross-Cultural Methodologies for Organizational Research: A Best-Practices Approach. ***Organizational Research Methods***, 6(2): 169–215.

Schwarz, N., & Clore, G. L. 1983. Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. ***Journal of Personality and Social Psychology***, 45(3): 513–523.

Shaw, J. D. 1999. ***Job satisfaction and turnover intentions: The moderating role of positive affect***, 139(2): 242–244.

Smit, Brandon W, Maloney, P. W., Maertz, C. P., & Montag-Smit, T. 2016. Out of sight, out of mind? How and when cognitive role transition episodes influence employee performance. ***Human Relations***, 69(11): 2141–2168.

Smit, Brandon W., Maloney, P. W., Maertz, C. P., & Montag-Smit, T. 2016. Out of sight, out of mind? How and when cognitive role transition episodes influence employee performance. ***Human Relations***, 69(11): 2141–2168.

Sonnentag, S. 2001. Work, Recovery Activities, and Individual Well-Being: A Diary Study. ***Journal of Occupational Health Psychology***, 6(3): 196–210.

Sonnentag, S. 2003. Recovery, Work Engagement, and Proactive Behaviour: A New Look at the Interface between Nonwork and Work. ***Journal of Applied Psychology***, 88(3): 518–528.

Sonnentag, S. 2012. Psychological Detachment From Work During Leisure Time: The Benefits of Mentally Disengaging From Work. ***Current Directions in Psychological Science***, 21(2): 114–118.

Sonnentag, Sabine. 2012. Psychological Detachment From Work During Leisure Time. ***Current Directions in Psychological Science***, 21(2): 114–118.

Sonnentag, S., & Binnewies, C. 2013. Daily affect spillover from work to home: Detachment from work and sleep as moderators. ***Journal of Vocational Behavior***, 83(2): 198–208.

Stokols, D., Novaco, R. W., Stokols, J., & Campbell, J. 1978. Traffic congestion, type A behavior, and stress. ***Journal of Applied Psychology***, 63: 467–480.

Stutzer, A., & Frey, B. S. 2008. Stress that doesn't pay: The commuting paradox. ***Scandinavian Journal of Economics***, 110(2): 339–366.

Szpunar, K. K., Spreng, R. N., & Schacter, D. L. 2014. A taxonomy of prospection: Introducing an organizational framework for future-oriented cognition: Fig. 1. ***Proceedings of the National Academy of Sciences***, 111(52): 18414–18421.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. 2004. High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success. ***Journal of Personality***, 271–324.

ten Brummelhuis, L. L., & Bakker, A. B. 2012. A resource perspective on the work-home interface: The work-home resources model. ***American Psychologist***, 67(7): 545–556.

Tornquist, M., & Miles, E. 2019. Trait self-control and beliefs about the utility of emotions for initiatory and inhibitory self-control. ***European Journal of Social Psychology***, ejsp.2581.

Trougakos, J. P., & Hideg, I. 2009. Momentary work recovery: The role of within-day work breaks. ***Current Perspectives on Job-Stress Recovery, Research in Organisational Stress and Well Being***, 7: 37–84.

Trougakos, J. P., Hideg, I., Cheng, B., & Beal, D. 2014. Lunch breaks unpacked: the role of autonomy as a moderator of recovery during lunch. ***Academy of Management Journal***, 57(2): 405–421.

van Gennep, A. 1960. ***The Rites of Passage***. Chicago, IL: Chicago University Press.

Vanderbilt, T. 2008. ***Traffic: Why We Drive The Way We Do (and What It Says About Us)***. Knopf Doubleday Publishing.

Watson, D., & Clark, L. 1999. The PANAS-X Manual for the Positive and Negative Affect Schedule-Expanded Form. ***Iowa Research Online***, 277(6): 1–27.

Williams, L. J., & Anderson, S. E. 1991. Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. ***Journal of Management***, 17(3): 601–617.

Yeager, D., Hanselman, P., Paunesku, D., Hulleman, C., Dweck, C., et al. 2018. Where and For Whom Can a Brief, Scalable Mindset Intervention Improve Adolescents' Educational Trajectories? ***PsyArxiv***. https://psyarxiv.com/md2qa/.

Zhang, H., & Feinzig, S. 2016. ***Should I stay or should I go?***

FIGURE 1
Conceptual Framework

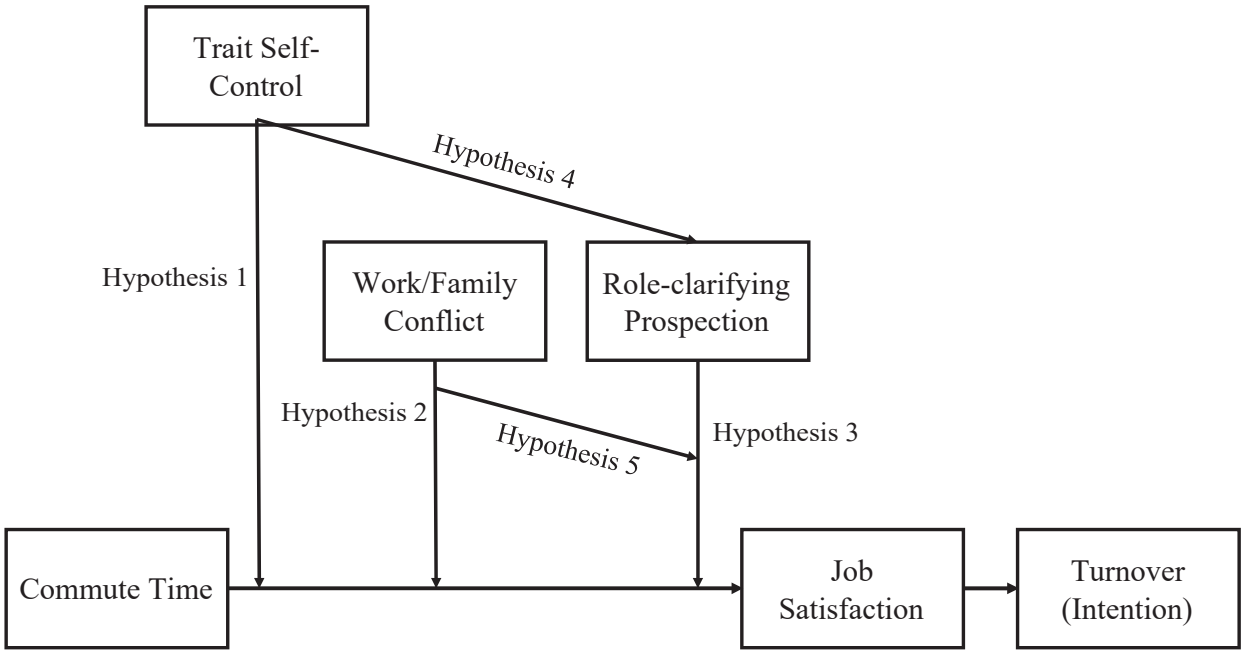
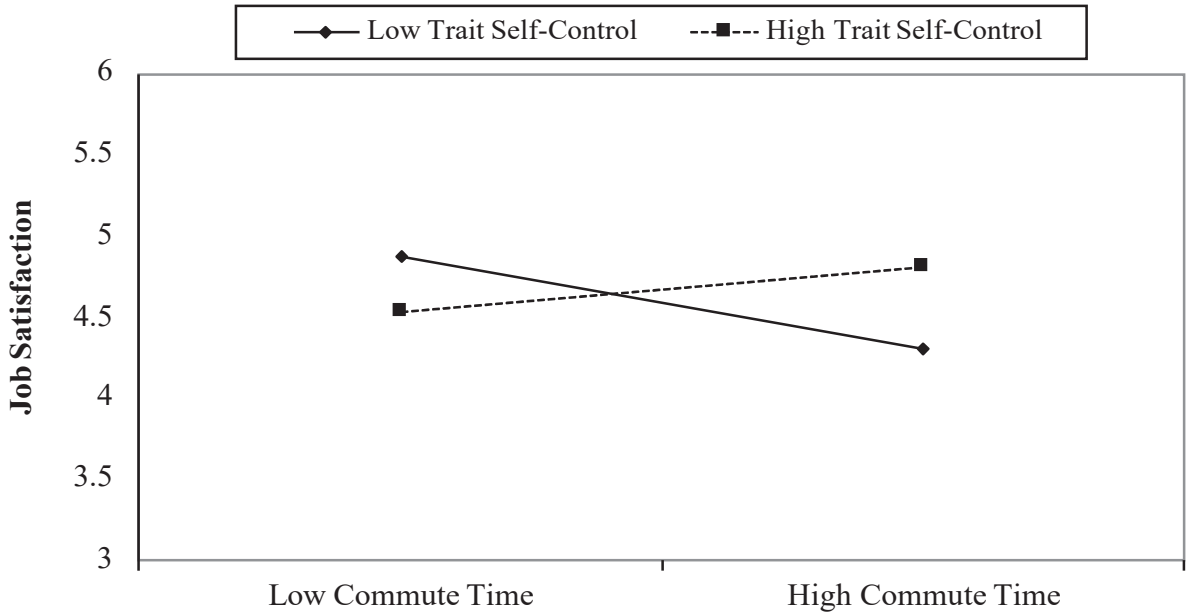


FIGURE 2
Study 1: Relationship between Commuting Time and Job Satisfaction as a Function of Trait Self-Control



Note. Only the slope for low trait self-control (-1SD) is statistically significant (B = -.28, SE = .14, p = .04), while the slope for high trait self-control (+1SD) is not statistically significant (B = .14, SE = .11, p = .23).

FIGURE 3
Study 3: Timeline of Experimental Procedure

Phase 1	**Phase 2**	**Phase 3**	**Phase 4**
First online survey, measured commute time, trait self-control, job satisfaction, turnover intention, and control variables.	Daily prompt to measure work-related prospection and pleasurable thoughts during commute to work (two weeks).	Daily text message that provided experimental manipulation. Participants continued response to daily prompt as Phase 2 (two weeks).	Second online survey, measured job satisfaction and turnover intention.

TABLE 1
Study 1: Means, Standard Deviations, and Correlations for Study Variables

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Commuting Time (minutes)	50.56	31.8									
2. Trait Self-Control	3.42	0.57	.11								
3. Age	32.72	6.87	.18**	.19**							
4. Female	0.43	0.50	-.13	.02	-.14*						
5. Tenure (months)	34.56	40.38	.28**	.22**	.43**	-.15*					
6. Hierarchy Level	3.33	1.25	.12	.12	.61**	-.14*	.40**				
7. Performance Award	0.12	0.33	.10	.03	.04	-.07	.25**	.20**			
8. Job Stress	4.35	1.29	.04	-.08	.00	-.10	.14*	.20**	.16*		
9. Job Satisfaction	4.66	1.23	-.03	.02	.14*	.05	.00	.06	-.01	-.16*	
10. Actual Turnover	0.20	0.40	-.13*	.01	.02	.04	-.03	.04	-.08	.06	.17**

Note. ***$p < .001$, **$p < .01$, *$p < .05$.

TABLE 2
Study 1: Moderated Regression Analysis

Predictor Variables	**Job Satisfaction**	
	B	*SE*
Age	.029	.016
Female	.131	.166
Tenure	–.001	.002
Hierarchy Level	–.028	.086
Performance Award	.005	.261
Job Stress	–.176**	.066
Commuting Time	–.002	.003
Trait Self-Control	–.013	.147
Interaction (Commuting time x Self-Control)	.014**	.005
N	225	
F	1.56	
R^2	.055	

Note. **$p < .01$. Commuting time and trait self-control were centered prior to analyses.

TABLE 3
Study 2: Correlations for Study Variables

	1	2	3	4	5	6	7
1. Commuting Time							
2. Job Satisfaction	-.09**						
3. Trait Self-Control	-.01	.26***					
4. Age	.01	.12***	.03				
5. Female	.08**	.04	.09**	.03			
6. Tenure	-.01	.04	.03	.65***	.06		
7. Job Stress	.05	-.36***	-.17***	.05	.10**	.07*	
8. Self-Rated Performance	-.01	.26***	.31***	.04	.03	.04	-.23*
9. Role-Clarifying Prospection	-.14***	.38***	.25***	.06	.00	.05	-.27*
10. Work-Family Conflict	.10**	-.41***	-.33***	-.03	-.16***	.01	.39*

Note. ***$p < .001$, **$p < .01$, *$p < .05$.

TABLE 4
Study 2: Moderated Regression Analysis (DV: Job Satisfaction)

	Model 1	**Model 2**	**Model 3**
(Intercept)	6.380***	5.713***	5.587***
	(.059)	(.162)	(.151)
Commuting Time	-.002**	-.002**	-.002**
	(.001)	(.001)	(.001)
Trait Self-Control	.128*	.122*	.043
	(.055)	(.055)	(.052)
Commuting Time x Trait Self-Control	.002**	.002**	.002**
	(.001)	(.001)	(.001)
Age		.021***	.021***
		(.005)	(.005)
Female		.050	.117*
		(.061)	(.057)
Tenure		-.008+	-.007
		(.004)	(.004)
Job Stress			-.311***
			(.028)
Self-Rated Performance			.137***
			(.031)
R^2	.083	.100	.221
Adj. R^2	.080	.094	.215
Num. obs.	1068	1068	1068
RMSE	.954	.946	.881

Note. $^{***}p < .001$, $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$. Commuting time and trait self-control were centered prior to analyses.

TABLE 5
Study 2: Moderated Regression Analysis (DV: Job Satisfaction)

	Model 1	**Model 2**	**Model 3**
(Intercept)	6.301***	5.722***	5.620***
	(.057)	(.154)	(.149)
Commuting Time	-.001+	-.001+	-.001*
	(.001)	(.001)	(.001)
Work-Family Conflict	-.318***	-.318***	-.175**
	(.057)	(.057)	(.057)
Commuting Time x Work-Family Conflict	-.001+	-.001+	-.001*
	(.001)	(.001)	(.001)
Age		.019***	.020***
		(.005)	(.004)
Female		-.038	.046
		(.058)	(.057)
Tenure		-.005	-.005
		(.004)	(.004)
Job Stress			-.235***
			(.030)
Self-Rated Performance			.130***
			(.030)
R^2	.172	.186	.253
Adj. R^2	.169	.182	.247
Num. obs.	1068	1068	1068
RMSE	.906	.900	.863

Note. $^{***}p < .001$, $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$. Commuting time and trait self-control were centered prior to analyses.

TABLE 6
Study 2: Moderated Regression Analysis (DV: Job Satisfaction)

	Model 1	**Model 2**	**Model 3**
(Intercept)	6.276***	5.639***	5.563***
	(.058)	(.157)	(.148)
Commuting Time	-.001	-.001	-.001
	(.001)	(.001)	(.001)
Role-Clarifying Prospection	.284***	.282***	.173**
	(.060)	(.060)	(.057)
Commuting Time x Role-Clarifying Prospection	.001+	.001+	.001*
	(.001)	(.001)	(.001)
Age		.020***	.020***
		(.005)	(.004)
Female		.085	.129*
		(.058)	(.055)
Tenure		-.009*	-.008
		(.004)	(.004)
Job Stress			-.266***
			(.028)
Self-Rated Performance			.151***
			(.029)
R^2	.147	.162	.260
Adj. R^2	.144	.157	.255
Num. obs.	1068	1068	106
RMSE	.920	.913	.859

Note. $^{***}p < .001$, $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$. Commuting time and role-clarifying prospection were centered prior to analyses.

TABLE 7
Study 2: Role-Clarifying Prospection as Predicted by Trait Self-Control

	Model 1	Model 2	Model 3
(Intercept)	.054+	-.139	-.237+
	(.029)	(.140)	(.136)
Trait Self-Control	.236***	.236***	.176***
	(.028)	(.028)	(.029)
Age		.006+	.007*
		(.004)	(.004)
Female		-.041	.011
		(.060)	(.059)
Job Stress			-.225***
			(.029)
Self-Rated Performance			.070*
			(.032)
R^2	.061	.064	.124
Adj. R^2	.060	.061	.120
Num. obs.	1068	1068	1068
RMSE	.945	.944	.914

Note. $^{***}p < .001$, $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$.

TABLE 8
Study 3: Means, Standard Deviations, and Correlations for Study Variables (Initial Survey)

	Mean	SD	1	2	3	4	5	6	7	8
1. Commuting Time (minutes)	51.05	30.46								
2. Job Satisfaction	4.91	1.26	-.10*							
3. Turnover Intention	2.69	1.18	.08	-.71**						
4. Trait Self-Control	3.72	0.71	-.01	.18**	-.14**					
5. Work-Family Conflict	2.86	1.45	.04	-.18**	.31**	-.30**				
6. Age	42.21	10.01	-.11*	-.05	.13**	.22**	.11*			
7. Female	0.48	0.5	.03	-.05	.06	-.08	.01	.05		
8. Positive Affect	3.27	0.92	.03	.27**	-.17**	.17**	.01	-.01	.27**	
9. Negative Affect	1.46	0.66	.01	-.17**	.28**	-.44**	.41**	.20**	-.17**	.06

Note. **$p < .01$, *$p < .05$.

TABLE 9
Study 3: Means and Standard Deviation for Role-Clarifying Prospection and Role-Unrelated Thoughts (Weeks 3 and 4) by Condition

Condition	Role-Clarifying Prospection		Role-Unrelated Thoughts	
	Mean	*SD*	*Mean*	*SD*
Role-Clarifying Prospection	2.81	.98	2.83	.99
Role-Unrelated Thoughts	2.44	.94	2.93	.94
Mixed	2.68	.92	2.84	.88
Control	2.64	.90	2.79	.99

TABLE 10
Study 3: Relationship of Commuting Time on Job Satisfaction by Condition

Condition	Effect	*SE*
Role-Clarifying Prospection	.012*	.005
Role-Unrelated Thoughts	-.011+	.006
Mixed	.005	.005

Note. The comparison group is the control condition. Condition is coded using the Helmert method. * $p < .05$, + $p < .10$

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