

PREDICTING DAILY ATTENDANCE BEHAVIORS: A THEORY OF PLANNED
BEHAVIOR APPROACH

by

Vias Chris Nicolaides
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Committee:

_____ Director

_____ Department Chairperson

_____ Program Director

_____ Dean, College of Humanities and Social
Sciences

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by

Vias Chris Nicolaides
Master of Arts
George Mason University, 2010
Bachelor of Arts
California State University, Fresno, 2008

Director: Reeshad S. Dalal, Associate Professor
Department of Psychology

Fall Semester 2016
George Mason University
Fairfax, VA

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DEDICATION

To my family - Papa Chris, Mama Eleni, little brother Nicolas, yiayia Zoe and pappous Nikos Sokratous - for existing in my life! Words cannot describe the degree of love and gratitude I have for you! No disrespect to the world, but the world would be a much much much better place if everyone had parents and family like you! From the bottom of my heart and mind, thank you for everything, thank you for you! I love thee immensely! Σας αγαπώ!

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My academic odyssey is coming to an end, and although it thankfully took me less time than what it took for Ulysses to reach Ithaca (it took him 10 years), I have enjoyed and learned plenty on my long voyage to my Ithaca. As the famous Greek poet Konstantinos Kavafis once wrote «Σα βγεις στον πηγαιμό για την Ιθάκη, να εύχεται νάναι μακρύς ο δρόμος.» “As you set out for Ithaca, hope the voyage is a long one.” Indeed, it has been a long one, but in so many aspects a rich one.

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ABSTRACT

PREDICTING DAILY ATTENDANCE BEHAVIORS: A THEORY OF PLANNED BEHAVIOR APPROACH

Vias Chris Nicolaides, Ph.D.

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Dissertation Director: Dr. Reeshad S. Dalal

The current dissertation borrowed from the Theory of Planned Behavior (TPB; e.g., Ajzen, 1991) to synthesize and test a model of early and late workplace departure behavior at the within-person level. The study used an 11-day experience sampling methodology (ESM) design through which self-report measures of independent variables and objective measures of dependent variables (i.e., early and late departure) were gathered from a sample of 57 employees. The results from multilevel mediation analyses substantially validated the model in the case of early departure, but not in the case of late departure, suggesting that the two variables are fundamentally distinct. For both behaviors, however, intention emerged as an important determinant of departure behavior. In the case of early departure behavior, specific attitude and perceived behavioral control concerning early departure mediated the effects of job satisfaction and ability to attend factors on early departure intention. In addition, intention to depart early

from work mediated the effects of specific attitude and perceived behavioral control concerning early departure on actual early departure behavior.

INTRODUCTION

Of paramount concern for any organization is its smooth functioning and operation, which can be determined in part by the timing and manner in which employees arrive to and depart from work. Arriving late and departing early from work are behaviors that have long been recognized to have adverse effects on coworkers, jeopardize the normal functioning of an organization, and result in financial costs (e.g., Blau, 2002; Cascio, 1987; Hepburn & Barling, 1996; Jamal, 1984; Kite, 1984; Koslowsky, 2000; Sagie, Birati, & Tziner, 2002). On the other hand, arriving early and departing late from work are behaviors that can be beneficial¹ to an organization since more time can be allotted to performance planning and work tasks (see Bowling, Burns, & Beehr, 2010). Daily attendance behaviors² arguably lie at the core of task performance in many work settings. Indeed, it has long been noted that “a superior attendance record is often used in organizations as one indicator of noteworthy job performance and readiness for promotion” (Steers & Rhodes, 1978, p.401) and daily attendance behaviors are an important part an employee’s overall attendance record. Hence, it behooves organizations to monitor and when appropriate reward (or punish) certain attendance behaviors (see Markham, Scott, & McKee, 2002). Yet, despite their importance to many

¹ Caution should be exercised since such behaviors can potentially have an adverse impact on employees to the extent to which they lead to fatigue, emotional exhaustion, and burnout.

² In the absenteeism literature, attendance is viewed on a given day and considered as the opposite of absenteeism. In the current paper, attendance is viewed in terms of arrival and departure time on a given day.

organizations, there is little systematic research on what influences an individual to come to work early and depart from work early or late. Only coming to work late has received meaningful research attention, but, as discussed subsequently, even here additional predictor variables can and should be examined.

As seen in Figure 1, arriving late at work has received the majority of research attention compared to the other three attendance behaviors. Moreover, the handful of empirical studies in which researchers have attempted to predict early arrival (Back, Schmukle, & Egloff, 2006; Bowling et al., 2010), early departure (Blau, 1994; Bowling et al., 2010; Boyar, Maertz, & Pearson, 2005; Iverson & Deery, 2001), and late departure (Bowling et al., 2010) has mostly focused on personality dispositions (e.g., conscientiousness) and attitudinal variables (e.g., job satisfaction, job involvement), which has been the dominant approach in lateness research as well (e.g., Adler & Golan, 1981; Bardsley & Rhodes, 1996; Blau, 1994; Clegg, 1983; Koslowsky, 2000). Unfortunately, however, the relationships observed have been found to be moderate to weak and often inconsistent (see meta-analyses of lateness by Harrison, Newman, & Roth, 2006; Koslowsky, Sagie, Krausz, & Singer, 1997). In addition, past studies have not directly examined mediating processes and the psychological mechanisms underlying daily attendance behaviors. Another major limitation of the literature is that it has exclusively relied on between-person investigations of daily attendance behaviors, which disregards the possibility that such behaviors display variability within people and cannot be used to infer what behavior an individual is more likely to enact on a particular day.

The main contribution of the current paper is that it examines the psychological mechanisms that are associated with day-to-day variation in early and late departure by using the Theory of Planned Behavior framework (TPB; Ajzen, 1985). That is, my focus is on within-person variability in daily attendance behaviors, as opposed to between-person variability. In other words, the focus is on what motivates an employee's attendance on a particular occasion. Such within-person processes have been increasingly recognized as important to study (Curran & Bauer, 2011) and represent a unique aspect of the current study since previous work has focused on between person variability in arrival and departure time which, although useful, does not speak to the day to day fluctuations of attendance behaviors.

In this vein, the current paper applies the TPB as a theoretical framework to build a model that can be appropriately applied to explain the process of daily attendance behaviors at the within-person level. Implicit in the theoretical framework of the TPB is the assumption that, apart from applying to differences between individuals, the theory should also apply within individuals. In their early writings, Ajzen and Fishbein (1977) argued that measures of individual cognitions and behavior should correspond in “context” and “time” elements. Therefore, attempting to predict within-person behavior on a daily basis necessitates that the TPB cognitions predicting the behavior are measured at the same timeframe. Thus, a natural extension of the TPB, as well as an interesting research question, would be to examine whether its constructs exhibit within-person variability and, thus, are suitable for explaining daily fluctuations in behavior.

In the proposed model, I incorporate constructs that past research has viewed as direct determinants of attendance behavior, but for which research has found weak relationships. In light of the TPB, such constructs are viewed as background/distal, indirect predictors of daily attendance behavior whose effects on behavior are mediated by the TPB's components. Such a view allows us to appreciate and understand the role played by broad attitudes (e.g., job satisfaction), personality characteristics (e.g., conscientiousness), and other factors that have been used somewhat unsuccessfully in the past to explain daily attendance behaviors at the workplace. Although including mediators does not strengthen relationships, it does enhance our understanding on how constructs operate.

The current model is designed to be applied to work situations in which a traditional, full-time schedule exists, which assumes a 40-hour week during which employees typically work an 8-hour day, 5 days a week, with fixed starting and stopping times (Avery & Zabel, 2001). Such a traditional work schedule arguably describes the majority of jobs across the world. Nonetheless, the current model is also likely to apply to certain, albeit not all, work contexts in which flexible schedules exist (see Kossek & Michel, 2011, for a list of different types and examples of flexible work schedules). For example, the current model is likely to apply to situations in which a flextime schedule (i.e., variable work schedule) is in effect. This is because employees can still arrive to work early or late and they can still depart from work early or late even though flextime exists. On the other hand, the current model may not apply to situations where a telework schedule (i.e., working away from the office location) is in place, because there might not

be a clear start time and a clear end time. In addition, in such a case the employee may not need to observe the attendance norms associated with other individuals, which, as will be explained further below, constitutes an important construct in the model.

The main contributions of the paper are twofold. The first contribution centers on looking at daily attendance behavior, and the TPB, from a within-person perspective and examining the key assumption that its components vary from day to day in the context of daily attendance behaviors. For example, subjective norms compose an important part of the TPB. Therefore, examining whether subjective norms vary at the within-person level from day to day constitutes a basic theoretical contribution of the current paper.

Subjective norms might be expected to vary from day to day because different days of the week may be perceived as being more relaxed (e.g., Fridays) than others (e.g., Mondays).

Second, the paper attempts to uncover the mediating mechanisms through which previously studied predictors of daily attendance behaviors relate to daily attendance.

Specifically, the current paper looks at the TPB components as mediators of the impact of traditional antecedents on attendance behaviors. For example, as I elaborate further below, job satisfaction has been a poor direct predictor of late arrival. However, using the proposed theoretical framework, job satisfaction is posited to be a distal predictor that has an indirect effect on behavior through the TPB components.

The structure of the paper unfolds as follows. First, I start by making the case for why daily attendance behaviors are important and worthy of scientific inquiry. This section is then followed by a discussion of the necessity of a daily/within-person approach to attendance behavior and how the TPB can help with this. This goes to the

heart of the rationale and contribution of the current paper. Next, I review the TPB and describe its multi-dimensional components. Finally, I build into the model constructs featured in past attendance research and tie them to the TPB's main components. This also constitutes a major contribution to the literature of arrival and departure behaviors. Throughout my discussion I offer hypotheses concerning within-person relationships.

The Importance of Studying Arrival and Departure Time at Work

Almost all of the research surrounding daily attendance behaviors has been concentrated on employee lateness perhaps because of its salience, link to the construct of work withdrawal, and negative consequences (e.g., Adler & Golan, 1981; Hanisch, 1991; Hanisch & Hulin, 1990; Hanisch, Hulin, & Roznowski, 1998). Indeed, for the tardy individual, violating a company's attendance policy can result in short term (e.g., immediate disciplinary action) and long-term (e.g., loss of promotion) negative consequences as well as decreased productivity due to the time lost. Moreover, lateness has direct consequences for coworkers who have to "pick up the slack" and cover for the late employee, thus disrupting their workday (Blau, 1994, 2002). Perhaps more problematic is the fact that individual episodes of lateness can be contagious to others and contribute to a counterproductive organizational attendance culture (Blau, 1995; Nicholson & Johns, 1985). From a financial standpoint, Sagie, Birati, and Tziner (2002) estimated that the cost of one employee's lateness equals \$5,186 per year.

Although there is limited research on early departure, it is likely to result in undesirable consequences for oneself, coworkers, and the organization similar to those of

lateness. Finally, both behaviors have been featured in taxonomies of work withdrawal (Blau, 1994) as well as deviant (Robinson & Bennett, 1995) and counterproductive (Spector et al., 2006) work behaviors. Although work withdrawal and counterproductive work behaviors are areas of research that have attracted much attention by researchers and practitioners alike, lateness and early departure have not been as popular.

On the other hand, it is surprising that the mirror-images of late arrival and early departure—namely, early arrival and late departure, respectively, which are seemingly productive attendance behaviors—have received almost no attention by researchers (Bowling et al., 2010). These behaviors have occasionally been featured as items in scales assessing the construct of organizational citizenship behavior (e.g., Feather & Rauter, 2004; Van Dyne, Graham, & Dienesch, 1994; Wittig-Berman & Lang, 1990), which, like the construct of counterproductive work behavior, has enjoyed substantial attention in the organizational behavior literature. However, when combined with other items in the scale, they tell us little about the underlying relationships between these two specific attendance behaviors and various outcomes, and as a result little is known about early arrival and late departure. To the extent that the extra time spent at work is allotted to work tasks, these two behaviors have the potential to benefit organizations. Moreover, similar to the case of lateness, it is possible that the moderate display of such productive behaviors influences other coworkers to engage in them as well. In summary, there is a plethora of good reasons why daily attendance behaviors should be studied and monitored. Given that organizations are increasingly turning to team based and high task interdependence structures for executing work (e.g., Sundstrom, McIntyre, Halfhill, &

Richards, 2000), the influence of individual attendance behaviors and the importance of studying and monitoring such behaviors should also increase. Although various theoretical models related to workplace attendance have been proposed (e.g., Koslowsky, 2000, 2009; Sagie, Koslowsky, & Hamburger, 2002; Steers & Rhodes, 1978)), arrival and departure time have not been a component of such models. In addition, whenever lateness has been the focus, most studies have taken a narrow view and examined lateness as a reaction to negative job attitudes despite the fact that lateness may not necessarily reflect withdrawal (Blau, 1994; Clegg, 1983). Given the importance of these behaviors, it is crucial to gain an understanding of the factors that lead employees to engage in them. In order to achieve this, I drew from the TPB, which I next review and extend to arrival and departure time. Before doing so, however, I first turn to a discussion of the necessity to adopt a daily/within-person approach to attendance behavior.

The Necessity of a Within-person Approach to Attendance Behavior

The present research focuses on the within-person structure (e.g., Cervone, 2005; Dalal, Bhawe, & Fiset, 2014) of daily attendance behaviors, which in the current paper refers to the occurrence of arrival and departure behaviors within one person over time rather than between persons. One fundamental assumption of this approach, which represents a shift in philosophy of science, is that a considerable proportion of the variability in job performance is attributable to within-person rather than between-person sources. This assertion has been supported by recent research examining various types of job performance (Dalal, Lam, Weiss, Welch, & Hulin, 2009; Day, Sin, & Chen, 2004;

Glomb, Bhawe, Miner, & Wall, 2011). For instance, across several studies, Dalal et al. (2014) estimated that over 40% of the variation in organizational citizenship behavior and counterproductive work behavior was within-person variability. In the same vein, across a period of several weeks, an employee is likely to vary in terms of when he or she arrives to and departs from work. However, I am aware of no research that has attempted to examine the percentage of variance in daily attendance behaviors that is attributed to within- and between-person sources, let alone predict within-person variability in these behaviors.

Investigating the dynamic nature of attendance behaviors (i.e., fluctuations within persons over time) would facilitate considerable advances in our understanding of these behaviors and their antecedents (see Dalal et al., 2014). For example, the relationship between two constructs at the between-person level (e.g., job satisfaction-lateness) may differ from the relationship between the same two constructs at the within-person level in sign, form, and/or size. Indeed, in the organizational sciences, one can find evidence of non-isomorphic relationships across levels. One such instance, which is directly relevant to the current paper, is the relationship between self-efficacy and job performance (Vancouver, 2012; Vancouver, Thompson, & Williams, 2001)--self-efficacy being analogous to the TPB's construct of perceived behavioral control. Specifically, in contrast to between-person studies suggesting that self-efficacy is strongly positively related to performance (Bandura, 1997, 2012), investigations by Vancouver and colleagues have found that the within-person relationship between self-efficacy and performance can be in some instances positive, negative, or not at all significant. Perhaps more importantly,

within-person results suggest that it is performance that influences self-efficacy rather than the converse (Sitzmann & Yeo, 2013).

Returning to our discussion of the merits of a within-person approach to attendance behaviors, even in the scenario where relationships across levels are isomorphic (i.e., do not change), within-person investigations are useful because theorizing at the within-person level will frequently provide a more scientific understanding of the *process* underlying the relationship. That is, within-person theorizing is frequently richer than between-person theorizing even when the empirical results do not differ across levels of analysis. Moreover, as many have noted (e.g., Beckmann, Wood, & Minbashian, 2010), many of the research questions posed in psychology and the organizational sciences are fundamentally within-person questions. Being able to predict within-person changes in behavior can provide accuracy and the power to meaningfully intervene on a particular day so as to satisfy organizational needs. This can be a powerful tool in ensuring organizational readiness on important days. For example, every organization runs on a calendar that has its own rhythm, one in which some days are deemed as more important than others for attending the full day at work. These could be days in which a larger volume of work is anticipated by the organization for example. On such days leaving earlier from work may result in negative consequences for the employee, his/her coworkers, and the organization. On the other hand, on such days it may behoove organizations to have employees depart later, assuming that doing so helps them adequately accomplish their work and critical functions for the day. Only insights from a within-person perspective would adequately

inform what should be done so as to maximize the likelihood of late departure, and minimize the likelihood of early departure, on a particular day.

From a practical standpoint, insights derived from the use of a within-person perspective can inform interventions so as to shape behavior at the right time and at the right place by providing the intervention components most needed at that moment (see Heron & Smith, 2010 for a health behavior application). In summary, there is a need to augment the between-person nomological network with more proximal within-person research (Dalal et al., 2009).

In doing so, I argue that the TPB has the potential to be used successfully at the within-person level to predict daily attendance behaviors. This is because its components can arguably display fluctuations from day to day. The small body of research examining day-to-day fluctuations in TPB cognitions suggests that TPB cognitions are not stable (Hobbs, Dixon, Johnston, & Howie, 2013; Kiene, Tennen, , & Armeli, 2008). Furthermore, Trafimow and Finlay (1996, 2002) found that intentions are better predicted from attitudes and subjective norms at the within-person level, than the between-person level, and argued that such analyses should be used for a more sensitive and improved test of the theory. Therefore, this study adds to this small body of literature by examining whether TPB cognitions concerning early and late departure exhibit meaningful day-to-day variability. This assumes that arrival/departure attendance motivation/intention can

fluctuate from day to day in response to daily changes in attendance-related attitudes, norms³, and perceived behavioral control (i.e., self-efficacy).

Although some constructs, such as attendance norms, may seemingly be understood as being more stable than other constructs, such as self-efficacy (see Vancouver, 2012), they can nonetheless still potentially display daily variations and, thus, be tied to daily fluctuations in attendance motivation and subsequent attendance behavior. For example, attendance norms on Friday, a day which signifies the end of the work week and the beginning of the weekend, may be more relaxed than attendance norms on Monday, a day which signifies the end of the weekend and the beginning of a new work week. Indeed, the acronym "TGIF" (Thank God/Goodness It's Friday) expresses the commonly held belief that individuals should be thankful when Fridays promise the beginning of a weekend. Employees may, for instance, feel able to leave the workplace early on a Friday afternoon in the absence of urgent deadlines. Monday, on the other hand, represents the beginning of a work week, and has been widely characterized as being depressing and "Blue" in both song and literature. For example, Areni and Burger (2008) found that typical moods were lowest on Monday, rising to a peak on Saturday. In the social-economics literature, one can find reference to the so called "Blue Monday" hypothesis. The basic premise of the "Blue Monday" hypothesis is that investors are affected by systematic mood changes that cause negative price pressures on Monday and

³ In the current paper, similar to the TPB, the term "norm" refers to an individual-level perception of the group norm (see Ajzen & Fishbein, 2011). This meaning differs from the Industrial/Organizational psychology terminology, which typically refers to a group-level perception.

positive price pressures on Friday. It is conceivable that a similar dynamic may present itself in the case of attendance norms concerning workplace arrival and departure.

Having described the necessity of augmenting the attendance literature with a within-person approach to attendance behavior and having argued for the appropriateness of using the TPB as a theoretical framework, I now focus on reviewing the TPB and its multidimensional components and extending it to explain within-person variations in arrival and departure behaviors.

TPB Applied to Daily Attendance Behaviors

Since its inception (Ajzen, 1985), the theory of planned behavior (TPB; Ajzen, 1985, 1991), which represents an expansion of the theory of reasoned action (TRA; Fishbein & Ajzen, 1975), has become one of the most influential and frequently cited models for the prediction of human behavior (Nosek et al., 2010), including work-related behaviors (see Ajzen, 1996; Fishbein & Ajzen, 2011). Indeed, several meta-analyses have provided clear evidence of the theory's validity and utility in a variety of settings and for a variety of behaviors (e.g., Armitage & Conner, 2001; McEachan, Conner, Taylor, & Lawton, 2011; Schulze & Wittmann, 2003).

At its core, the TPB posits that the proximal determinant of volitional behavior is one's intention to engage in that behavior. Thus, the likelihood of engaging in a given daily attendance behavior is greater if one intends to engage in it than if one does not. This theoretical assertion runs parallel to the Steers and Rhodes (1978) attendance framework, which posits that the proximal determinant of volitional attendance behavior is one's motivation to engage in an attendance behavior. Thus, the strength of intention

can be equated with the strength of attendance motivation, which guides, energizes, and sustains the tendency for early arrival, early departure, late arrival, and late departure. In turn, the intention to act is postulated to mediate the effects of three constructs: attitude towards that behavior, subjective norms, and perceived behavioral control.

First, attitudes concern the affective and cognitive evaluations of the activity by the individual and, thus, encompass expectancy and valence components of motivation. The notion of a specific attitude towards a behavior comes from Ajzen and Fishbein's (1977; Ajzen, 1988) compatibility principle, which was developed in response to the moderate to weak, and often inconsistent, relationships encountered in the literature between attitudes and behaviors. Specifically, for a strong attitude-behavior relationship to be found there needs to be a high degree of correspondence between the attitudinal and behavioral entities. Indeed, this principle has received empirical support in the area of lateness where Foust, Elicker, and Levy (2006) developed and validated a measure of one's specific lateness attitude which exhibited incremental validity over and above global attitudes (e.g., job satisfaction). In a similar vein, Blau, Tatum, and Cook (2004) found support for the use of a punctuality attitude to predict late arrival.

Second, subjective norms represent the social pressures of the individual to engage (or not engage) in the behavior and the individual's inclination to conform to these pressures. To the extent to which individuals perceive favorable subjective norms for a particular behavior, their intentions to act and the likelihood of acting should be high. Indeed, the impact of perceived norms on attendance behaviors has long been supported in the attendance literature (Bamberger & Biron, 2007; Blau, 1995; Gellatly &

Luchak, 1998; Mathieu & Kohler, 1990; Markham & McKee, 1995), although the bulk of this research has not examined the effect of daily norms on daily attendance behaviors

Third, perceived behavioral control was added to the TRA to form TPB so as to predict behaviors that are not under complete volitional control of the person. That is, there exist a variety of situations in which individuals are not able to fully act on their intentions because of a lack of perceived control. For example, workers may lack the time and cognitive resources to stay at work and continue working after the formal end of the workday. In the TPB, perceived behavioral control reflects the skills, resources, and opportunities employees perceive as existing in order to perform the target behavior. Once again, there is evidence in the attendance literature that changes in self-efficacy, resulting from training in self-management skills, are associated with better attendance behaviors (Frayne & Latham, 1987; Latham & Frayne, 1989). In addition, in the literature on lateness, many researchers have called for the incorporation, into theoretical models, of variables that limit the control of the individual to attend (e.g., Blau, 1995; Koslowsky, 2000).

Traditionally, the TPB has been applied to explain differences between individuals. Those most likely to perform a given behavior are assumed to be the ones with the most positive attitudes, subjective norms, perceived behavioral control, and intentions. What a person does is assumed to be best described in comparison to what others do. On the other hand, a within-person approach examines how the TPB components concerning departure behavior relate to corresponding intentions and departure behavior within each individual. In this case, what a person does on a particular

occasion is best described in comparison with what the person does on other occasions. As mentioned, there is increasing recognition that such within-person processes are important and need to be understood (Curran & Bauer, 2011).

As discussed above, the TPB is a good theory to study attendance from a within-person perspective. The theory, and its various components, may help us understand that an individual's decision to stay late at work *on a particular day* can be understood as their motivation to stay late *on that particular day*, which can be explained by a) what they think and how they feel about staying late *on that particular day*, b) the employee's perceptions of other employees' beliefs about the desirability of staying late *on that particular day*, and c) how confident they feel they can stay late *on that particular day*.

Given the accumulated evidence of the utility of this theory in the context of daily attendance behaviors I now turn the reader to Figure 2, which presents my model of daily attendance behaviors. In line with the TPB, the major immediate precursor to a decision to arrive early or late and/or depart early or late on a given day is the intention to arrive early or late and/or depart early or late. Next, the major determinants of one's intentions to perform a given daily attendance behavior are specific attitudes, subjective norms, and perceived behavioral control for performing the focal behavior. These constructs can be viewed as proximal predictors of attendance in the model. In the next section I describe the multidimensional nature of TPB's constructs followed by a discussion of the model's distal predictors.

Dimensions of Intentions to Engage in Arrival/Departure Behavior

The literature surrounding the meaning and conceptualization of intentions suggests a multidimensional perspective (Davis & Warshaw, 1995; Fishbein & Stasson, 1990; Tubbs & Ekeberg, 1991; Warshaw & Davis, 1985). Intentions have been argued to be composed of two distinct components: desires and self-predictions. Desires reflect what individuals want to do whereas self-predictions concern their behavioral expectations regarding the likelihood that they will perform some action. Both components have been posited as “valid indicants of the same latent variable, namely intention” (Fishbein & Stasson, 1990, p. 177). A bridge with the attendance literature can be seen if one equates intentions with motivation to attend (Bardlsey & Rhodes, 1996; Dishon-Berkovits & Koslowsky, 2002; Steers & Rhodes, 1978). I believe that both desires and self-predictions have the potential to vary from day to day in response to changes in person and the environment. For example, an employee may wish/desire/want to stay late at work on certain days of the week because he or she wants to impress his or her supervisor, but that desire may not be as strong, or even existent, if the supervisor is out of the office. Similarly, when an employee thinks he or she will arrive and/or depart the workplace may abruptly change in response to unexpected family and work related issues.

Dimensions of Specific Attitudes to Engage in Arrival/Departure Behaviors

An attitude is a determinant of intention and has been defined as “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question” (Ajzen, 1991, p. 188). Such evaluations feature affective and cognitive

components (e.g., Breckler & Wiggins, 1989). In the current paper, I conceptualize the affective part of an individual's specific attitude as reflecting emotional responses and feelings engendered by the particular attendance behavior (i.e., pleasant-unpleasant; good-bad). On the other hand, the cognitive part of an individual's specific attitude is here theorized to reflect two components: (a) his/her evaluation of engaging in the behavior using general descriptors (i.e., wise-foolish, harmful-beneficial) and (b) the sum of the products of the person's beliefs that the behavior leads to certain positive and negative outcomes (e.g., "If I stay late at work today, I will finish a client report" and "If I stay late at work today, it will be a waste of time") and his/her corresponding value of each outcome (e.g., "I value finishing a client report" and "I mind wasting time"). The former cognitive component can be considered to reflect a general utility perception whereas the latter cognitive component represents beliefs about the consequences of performing the behavior and the evaluation of those consequences (i.e., subjective probabilities; expectancy-value perceptions; e.g., Fishbein, 1963). Indeed, in their seminal employee attendance model, which attempts to account for voluntary and involuntary absenteeism, Steers and Rhodes (1978) emphasized that "there must be an expectancy on the part of the employee that attendance will lead to desirable rewards" (p. 398). Furthermore, positive or negative evaluations of the outcome of the behavior could be subject to variability due to daily situations such as changes in affective state. For example, on "slow" days in which workload is low, employees may experience boredom which may give rise to a more favorable attitude concerning early departure on that particular day. Similarly, on days with high workload, employees may experience a state

of flow (e.g., Csikszentmihalyi, 1996) and feel enjoyment, energized, and fully involved with their work activities. In turn, such feelings may give rise to a more favorable attitude concerning late departure on that specific day (and a more negative attitude concerning early departure). Therefore, it is reasonable to attitudes as being variable on a day-to-day basis. Overall, individuals who have more positive affective, general utility, and expectation-value perceptions should also have more positive attitudes towards arriving and departing work early/late and should be more likely to actually do so.

Dimensions of Subjective Norms to Engage in Arrival/Departure Behaviors

In the current paper, subjective norms are operationalized as perceived injunctive norms (Fishbein & Ajzen, 2010), which refer to an employee's beliefs about how strongly other individuals important to him or her feel that he or she should engage in early arrival, early departure, late arrival, and late departure, and how much he or she wants to conform to these expectations in general (Ajzen, 1991). For example, an employee might believe that his or her family does not want him or her to leave from work late. The employee might be strongly motivated to comply with his or her family, which would have a negative impact on subjective norm and eventually intention. It is important to note that an employee's beliefs and compliance motivations differ between nonwork referents (e.g., family, friends) and work referents (e.g., supervisor, coworkers). Indeed, Nicholson and Johns's (1985) conceptual work on the social dynamics of attendance identified coworkers, supervisors, family and friends as four distinct key referent groups. For example, leaving early from work may be an acceptable behavior for

one's family, but unacceptable for one's supervisor. Similarly, an employee may feel a stronger motivation to comply with one's family than with one's supervisor or coworkers. Hence, our conceptualization includes work-specific and nonwork-specific referents as targets of the injunctive norm dimension which is operationalized as the sum of the products of (a) an employee's beliefs his or her supervisor/coworkers/family/friends think he or she should arrive early, arrive late, depart early, depart late and (b) how motivated the employee is to comply with his supervisor/coworkers/family/friend's beliefs. Once again, evidence of the importance of subjective norms comes from the withdrawal literature, which has established that perceived workplace norms play an important role in the occurrence of lateness and absence (e.g., Johns, 2002). Simply put, when employees see their coworkers as exhibiting high absence and lateness incidents, and believe it is acceptable for them to do so as well, they will have greater motivation to follow in their footsteps, and will tend to be absent and come late as well (e.g., Blau, 1995; Biron & Bamberger, 2012; Elicker et al., 2008; Gellatly & Luchak, 1998). As stated above when discussing the "Blue Monday" hypothesis, there are sound reasons for why attendance norms concerning arrival and departure may vary from day to day. Moreover, given that subjective norms depend on the degree to which an individual is willing to comply with his coworkers' and supervisor's desires, to the degree that such motivation to comply fluctuates from day-to-day due to intra/interpersonal states and situations, we would expect subjective norms to also fluctuate from day-to day. For example, on days in which there is dissatisfaction with coworkers and/or supervisors, an employee may come to be less inclined to conform

to their desires. Similarly, such a motivation to comply may be higher on days in which the employee is satisfied with his/her coworkers and/or supervisors.

Dimensions of Perceived Behavior Control to Engage in Arrival/Departure Behaviors

The third proposed determinant of intentions for early arrival, early departure, late arrival, and late departure is perceived behavioral control, which refers to the person's perception of control over performance of the behavior. Even though an employee has a positive attitude concerning the focal attendance behavior ("I find it acceptable to leave work early today") and feels a social expectation to engage in it ("My family expects me to leave work early today"), he or she may not intend to do so because of a lack of control over performing the behavior. As mentioned, this construct was added to the TRA to deal with situations in which people may lack complete volitional control over the behavior of interest. However, there has been a profusion of conceptualizations regarding perceived behavioral control and its precise meaning has been debated (Ajzen, 2002; Ajzen & Fishbein, 2005; Conner & Armitage, 1998; Fishbein & Stasson, 1990; Rodin, 1990; Terry & O'Leary, 1995). Recently, Fishbein and Ajzen (2010) asserted that "conceptually, perceived behavioral control is equivalent to Bandura's self-efficacy expectation" (p. 177). To the extent that employees perceive themselves to be capable of performing the behavior and perceive they have control over the choice to engage or not in the behavior, perceived behavioral control will be higher. As discussed above, a recent body of literature has shown that the construct of self-efficacy can and does display significant within-person variation (e.g., Richard, Diefendorff, & Martin, 2006; Vancouver, 2012).

According to social-cognitive theory, self-efficacy is expected to fluctuate depending upon various intrapersonal states and situations (Bandura, 1997; Cervone, 2005). For example, on days in which employees conduct tasks that suit their strengths they come to experience a higher sense of self-efficacy than on days in which they do not use their talents at work (van Woerkom, Oerlemans, & Bakker, 2016). Therefore, it is plausible that on days in which employees make use of their time management skills for work, they will come to feel a greater sense of self-efficacy concerning managing their time of departure from work. Furthermore, an individual could come to have higher or lower self-efficacy based on how successfully he or she has executed a given behavior (e.g., early and late departure) in the recent past (see Sitzmann & Yeo, 2013). For example, leaving early from work on a given day may lead an individual into believing that he/she can achieve the same behavior on a subsequent day.

The literature on lateness, and general attendance, provides direct and indirect evidence of the motivational influence of variables that are similar to the construct of perceived behavioral control. Direct evidence comes from two studies that have shown that attendance is influenced by training in self-management skills that attempt to build off self-efficacy (Frayne & Latham, 1987; Latham & Frayne, 1989). Indirect evidence comes from studies that have found relationships between lateness and factors that lie outside the control of the individual, such as weather conditions (Mueser, 1953), child-related incidents (Dishon-Berkovits & Koslowsky, 2002), and commuting-related factors (Leigh & Lust, 1988).

Given the TPB, attendance motivation should fully mediate the effects of specific attitude, subjective norms, and perceived behavioral control on attendance behaviors. In summary, given the above paragraphs and in line with the TPB, the below within-person propositions follow:

H1: Daily attendance intention/motivation is positively related to daily attendance behavior.

H2: Daily attendance intention/motivation fully mediates the relationship between an *attendance-specific attitude* and attendance behavior.

H3: Daily attendance intention/motivation fully mediates the relationship between *attendance norms attitude* and attendance behavior.

H4: Daily attendance intention/motivation fully mediates the relationship between *perceived behavioral control* and attendance behavior.

Integrating Relevant Background Predictors to the Model

In light of the current theoretical model, the weak relationships found in past research between predictors and attendance behaviors can be accommodated, and in fact be expected, if we view such variables as background/distal factors whose effects on behavior are transmitted by the theory's components. Thus, an important endeavor in the current paper was to identify relevant individual difference distal predictors and examine whether their effects on intentions and attendance behavior are mediated by specific attitudes, subjective norms, and perceptions of control. Before proceeding with the presentation of the relevant background variables that are considered in the current model, it is important to elaborate on issues related to levels of analysis. First, although

my focus is on predicting within-person variability in arrival and departure times, the current model could also be used at the between-person level as well, which is the level at which most TPB research has been conducted. Second, when choosing background predictors it is important to consider whether the predictors are stable or dynamic in nature as well as whether the focus is on predicting within-person and/or between-person variability in arrival and departure times.

Based on a review of the attendance literature, I present in Figure 2 the individual difference variables that have received empirical support and, thus, represent appropriate candidates for future attendance research. First, some researchers in the lateness literature have followed in the tradition of the personological basis of withdrawal (e.g., Judge, Martocchio, & Thoresen, 1997) and have attempted to identify personality trait predictors to explain daily attendance behaviors. The personality trait that has received some support is conscientiousness. Second, researchers in the withdrawal domain have emphasized the relevance of job attitudes in predicting work withdrawal. In this vein, the most popular job attitude studied, job satisfaction, is included in the current model. I also suggest that job satisfaction is dynamic in nature and can be suitably used to predict within-person fluctuations in arrival and departure times. Indeed, in recent years, an emergent stream of research has focused on modeling intra-individual variation in job attitudes and has demonstrated that job satisfaction can vary substantially over time (e.g., Ilies & Judge, 2002; Judge & Ilies, 2004; Totterdell, Wood, & Wall, 2006). For example, Ilies, Scott, and Judge (2006) found that job satisfaction and organizational citizenship behaviors were positively associated at the within-person level.

Stable, Between-Person Predictors of the Model

Conscientiousness. Almost 80 years ago, psychologist George Dudycha (1937, 1938) was one of the first to suggest that lateness raises issues of reliance.

Conscientiousness has been a frequently studied predictor of lateness. However, the empirical studies show that, overall, conscientiousness is an inconsistent and poor predictor of tardy behavior (Back et al., 2006; Bowling et al., 2010; Conte & Jacobs, 2003; Hattrup, O'Connell, & Wingate, 1998; Foust et al., 2006). Nonetheless, coming to work in a timely and regular manner communicates a sense of dependability (Dudycha, 1938). In modern days, dependability is thought of as a core dimension of conscientiousness (e.g. Hogan & Ones, 1997; Saucier & Ostendorf, 1999), which, in turn, has been found to be one of the best and most powerful dispositional predictors of performance (e.g., Barrick & Mount, 1991; Dudley, Orvis, Lebiecki, & Cortina, 2006). Given that conscientious individuals tend to be reliable, organized, dutiful, and persevering (e.g. Costa & McCrae, 1992; Peabody & De Raad, 2002; Perugini & Gallucci, 1997; Roberts, Chernyshenko, Stark, & Goldberg, 2005; Saucier & Ostendorf, 1999), they could reasonably be expected to be more likely to engage in early arrival and late departure and less likely to engage in late arrival and early departure. Interestingly, when examining the lower-order lexical structure of conscientiousness, Roberts et al. (2005) identified punctuality as one of the eight dimensions of conscientiousness. Overall, the inclusion of conscientiousness in the context of daily attendance behaviors is well justified.

I expect conscientiousness to operate primarily via all three of the TPB's components: the specific attitude, subjective norms, and perceived behavioral control routes. First, given that punctuality is an aspect of conscientiousness, I expect highly conscientious individuals to be less tolerant of late arrival and early departure. Moreover, given their emphasis on hard work it is logical to expect highly conscientious individuals to have a favorable attitude towards early arrival and late departure because doing so would allow one to get more work done. Second, because dutifulness is an aspect of conscientiousness (Costa & McCrae, 1992), I would expect conscientious individuals to want to comply with what their supervisors would like them to do. Given that under the TPB framework motivation to comply is an aspect of subjective norms, a relationship between conscientiousness and subjective norms is expected. Third, because highly conscientious individuals are more likely to be willing to engage and work hard on tasks than those low in conscientiousness, they are more likely to expect to succeed on tasks (i.e., have high self-efficacy; Gellatly, 1996). As stated by Martocchio and Judge (1997), "self-efficacy represents the mechanism through which the generalized tendencies of conscientiousness manifest themselves" (p. 766). Therefore, conscientious employees may come to believe that they have more control over their attendance. Given the conceptually equivalent nature of perceived behavioral control and self-efficacy, I would expect the former to partially mediate the effects of conscientiousness onto attendance motivation and behavior. I expect partial mediation given that there are three mediators for the effect of conscientiousness on attendance behavior.

H5: Specific attendance attitude partially mediates the relationship between conscientiousness and attendance motivation.

H6: Subjective norms partially mediate the relationship between conscientiousness and attendance motivation.

H7: Perceived behavioral control partially mediates the relationship between conscientiousness and attendance motivation.

Dynamic, Within-Person Predictors of the Model

Job Satisfaction. The conceptualization of job satisfaction as a state is consistent with Locke's definition which described job satisfaction as "a pleasurable or positive emotional state resulting from an appraisal of one's job or job experiences" (1976, p. 1300). The inclusion of job satisfaction is justified since an ample body of literature has it in the nomological network of work withdrawal, OCBs, and CWBs (Dalal, 2005; Harrison et al., 2006; Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002; Schleicher, Hansen, & Fox, 2011), all of which are frameworks under which attendance behaviors have been studied.

Job satisfaction can foster feelings of engagement leading employees to invest more heavily in their work roles (Kahn, 1990, 1992). In contrast, low levels of job satisfaction can lead to frustration, emotional exhaustion, and withdrawal in the work setting (Schleicher et al., 2011). Similarly, the principle of reciprocity (Gouldner, 1960) and the theory of social exchange (Cropanzano & Mitchell, 2005; Foa & Foa, 1974) suggest that employees may spend more/less time at work (by arriving earlier/later and

departing earlier/later) so as to give back to the organization for providing a high, or low, quality work experience.

I expect specific attendance attitudes to mediate the effects of job satisfaction on daily attendance behaviors. When an employee feels satisfied with his or her job and perceives his or her needs are being met, there will be a positive attitude towards the work itself and the work environment in general. Therefore, I argue that the higher the employee's job satisfaction, the less likely the individual will have an attitude that being late and departing early to work is acceptable. I expect partial mediation given that I propose more than one mediator for the effects of job satisfaction and job involvement on attendance motivation.

H8: Specific attendance attitude partially mediates the relationship between job satisfaction and attendance motivation.

There is also reason to believe that perceived norms and perceived behavioral control may be determined by one's level of job satisfaction. As discussed previously, perceived injunctive norms are a function of an employee's beliefs about the prescriptions of his or her salient referents (when it comes to engaging in a given attendance behavior) and the employee's motivation to comply with the salient referent. Two such salient referents are coworkers and supervisors. It seems logical to suggest that individuals that are happy and content with their jobs are more likely to care about what their coworkers and supervisors think about engaging in the various daily attendance behaviors and, in turn, comply. Indeed, past research has found that when employees are satisfied and involved with various aspects of their jobs, they are more likely to comply

with their supervisors' requests (Rahim, 1989; Schleicher et al., 2011). I also expect satisfied individuals to experience higher levels of perceived behavioral control.

Individuals that are satisfied with their jobs will tend to have high energy and to be able to devise strategies and actions necessary to complete their job. This may grant them the perception of control over how they schedule their time on tasks at work on a given day, including their departure from the workplace. Therefore, I would expect job satisfaction to have a significant relationship with perceived norms and perceived behavioral control. Furthermore, I expect partial mediation given that I have already proposed a mediator (i.e., specific attendance attitude) for the effects of job satisfaction on attendance motivation.

H9: Perceived attendance norms partially mediate the relationship between job satisfaction and attendance motivation.

H10: Perceived behavioral control partially mediates the relationship between job satisfaction and attendance motivation.

Ability to attend factors. Many researchers in the lateness literature have long made the case that lateness may not necessarily reflect withdrawal, but the presence of less controllable factors, such as transportation concerns, bad weather, personal illness, accidents, family and outside work responsibilities (e.g., Blau, 1994; Farrell & Robb, 1980; Gupta & Jenkins, 1983; Jamal, 1981; Leigh & Lyst, 1988; Motley, 1926).

Therefore, it is important to include such variables in any model that attempts to explain attendance behaviors. When such events are experienced by employees, they can lead an employee to alter their specific attendance attitude, but also can influence perceptions of

control over performing a given attendance behavior. For example, having to pick one's sick child up from daycare can lead to forming less negative attitude concerning early departure on that day as well as lead to actual early departure from work. At other times, such events can exert a direct effect on attendance without having to give rise to cognitive and motivational processes (e.g., perceived behavioral control; attendance motivation). This might be the case for example when extreme adverse weather conditions (e.g., heavy snowstorm) simply do not allow an employee to travel to work. Similar to above, I expect partial mediation given that there are two mediators for the effects of unexpected events and outside work responsibilities on attendance motivation.

H11: Specific attendance attitude partially mediates the relationship between ability to attend factors and attendance motivation.

H12: Perceived behavioral control partially mediates the relationship between ability to attend factors and attendance motivation.

METHOD

Sample

The participants in this study comprised a sample of 57 non-academic (staff) Greek-Cypriot employees at the University of Cyprus and occupied a variety of positions in the organization (e.g., accountants, legal consultants, secretaries, engineers). All participating employees were under the same attendance policy and had the same work hour schedules. The sample was comprised of 25% men and 75% women. The average employee was 40 years old ($SD = 8.89$) and worked at the organization for 9 years ($SD = 5.93$). Moreover, 75% of participants were married and the average family size for all employees was 2.52 ($SD = 1.27$). The average commuting time to work from home was about 28 minutes ($SD = 13.74$) and the overwhelming majority used personal transportation to get to work.

To recruit participants, all employees of the organization (~300) were sent an email inviting them to participate in the study. In order to increase participation, all participating employees were included in a lottery for three hotel accommodation packages. A total of 57 employees provided usable data in the study (response rate ~20%). On average, 31 employees participated on a given day (range across days: 29-57 employees) and provided a range of 322-544 daily observations.

Procedure

Management gave permission for the study to take place over the course of 11 consecutive business days in which an interval-contingent experience sampling methodology was employed (see Ilies & Judge, 2002). Every day, at 1:00 P.M., participants were sent an email reminding them to complete the daily survey along with a link which directed them to the daily questionnaire. All participants completed the daily survey before they left work. Timestamps provided evidence that participants completed the daily surveys during working hours for which management had given its written permission to complete. The daily questionnaire included short measures of state job satisfaction, attendance norms concerning early and late departure on that day, specific attitudes towards early and late departure on that day, perceived behavioral control concerning early and late departure on that day, and intentions to depart early and late on that day. All questionnaires were translated from English to Greek by certified translators using Brislin's (1980) back-translation method. Furthermore, the items were pilot tested by conducting a focus group with five employees fluent in both the English and Greek languages so as to ensure the survey's appropriateness and ease of understanding. All items were deemed as appropriate and easy to understand by all of the employees in the focus group.

Dependent Variable Measures

Daily Attendance Behaviors. Employees at the organization had a work schedule which asked them to attend the workplace from 7:30AM to 2:30 PM. In addition, a flextime arrival window of 1 hour was granted in which employees were

required to enter work before 8:30 AM and were also required to conclude the day by having worked a total of 7 hours. The critical functions of the organization that needed all employees to be present (e.g., meetings, services) occurred between 8:30AM and 2:30PM. Officially, lateness was considered by the organization as arriving after 8:30AM and the attendance policy did not allow employees to make-up lost time by arriving early or departing late on other days. Therefore, there is no incentive to arrive earlier or depart later on a given day so as to make up time on a previous or subsequent day.

In the current study, early departure was measured as the time in minutes an employee was short of completing the 7 hour work schedule. Late departure was measured as the extra time in minutes an employee had put in beyond the 7 hour work schedule. This rationale is consistent with how the organization views early and late departure: these constructs are defined by the organization solely in terms of the number of hours worked per day (i.e., less than or greater than 7 hours, respectively) rather than by comparing actual departure time on a given day to some standard time (e.g., whether the employee left before or after 2:30PM). No organizational rewards were given for early arrival and late departure behaviors. However, frequent episodes and long spells of late arrival and early departure resulted in employee counseling. To record employee attendance, the organization used an electronic attendance system which required employees to swipe a time card upon entering and exiting.

Overall, three attendance variables were coded: 1) an overall arrival time variable, which is used as a statistical control variable in the analyses, 2) an early departure variable, and 3) a late departure variable. So as to record arrival time, 7:30 AM was used

as a referent to code arrival time because it marked the official beginning of the workday and of the organization's operations⁴. For example, if an employee arrived at 7:25 AM he or she received a "-5" on arrival time. Early departure and late departure were studied distinctly and operationalized as ratio scales of measurement. For each day a given employee received one early departure score and one late departure score. If the employee departed early from work, he or she received a score representing the number of minutes he or she left early (i.e., minutes short of completing the 7 hour work schedule). At the same time he or she received a late departure score for that day of zero. For example, if an employee arrived at 7:30 AM and departed at 2:00 PM, he or she received a score of "30" on early departure and a score of "0" on late departure. An analogous practice was followed for when the employee departed late from work (i.e., the extra number of minutes the employee worked beyond the 7 hour window). For example, if an employee arrived at 7:30 AM and departed at 2:45 PM, he or she received a score of "15" on late departure and a score of "0" on early departure.

Independent Variable Measures

Departure Time Intentions. These two constructs (one for early departure and one for late departure) were measured with two separate questionnaires, each containing three items that aimed to assess desires and self-prediction concerning workplace departure (i.e., the degree to which participants felt motivated to depart early and late

⁴ Using a different referent for arrival time (e.g., 8:30 AM or 12:00 AM) does not change the substantive results of the paper, since doing so constitutes a simple linear transformation that does not influence the magnitude of relationships with other variables.

from work at the time of survey administration). Participants rated their agreement with three statements (1 = “strongly disagree”; 5 = “strongly agree”) that are based on the work of Fishbein and Ajzen (2011). Sample items are “Today, I plan to leave late from work” (self-prediction) and “Today, I want to leave early from work” (desire). To confirm my prediction that these three items loaded onto one latent factor, I conducted a multilevel confirmatory factor analysis (CFA) in Mplus 7.3 (Muthén & Muthén, 1998-2012). The CFA was just identified and the factor loadings at the within-person level for early departure were 0.92, 0.96, and 0.86 whereas for late departure they were 0.87, 0.93, and 0.72.

Specific Attitude towards Departure Time Behaviors. These two constructs (one for early departure and one for late departure) were measured with two separate questionnaires each containing two items that assessed the degree to which participants had a positive attitude towards the specific departure behavior. The items were adapted from a scale by Fishbein and Fishbein (2011). A sample item is “Today, leaving from work early would be bad.”

Subjective Norms for Departure Time Behaviors. These two constructs were measured with two separate questionnaires each containing four items adapted from Hurtz and Williams (2009), and assessed a) the degree to which on that day the employee believed that his or her supervisor and coworkers thought it is acceptable to depart early and late and b) the degree to which the employee is motivated to comply with his or her supervisor and coworkers. Sample items are “How likely is it that your supervisor thinks

you should depart late from work today?” and “When it comes to my work, today I want to do what my supervisor thinks I should do.”

Perceived Behavioral Control. Participants rated their agreement (1 = “strongly disagree”; 5 = “strongly agree”) with three items adapted from Fishbein and Fishbein (2011). A sample item is “The decision of whether or not I depart from work today late/early is entirely up to me.” Perceived behavioral control was measured for both early and late departure. To confirm my prediction that these three items loaded onto one latent factor, I conducted a multilevel confirmatory factor analysis (CFA) in Mplus 7.3 (Muthén & Muthén, 1998-2012). The CFA was just identified and the factor loadings at the within-person level for early departure were 0.87, 0.79, and 0.66 whereas for late departure they were 0.70, 0.88, and 0.67.

Experienced State Job Satisfaction. Job satisfaction was measured with a four-item version of the Brayfield and Rothe (1951) Index of Job Satisfaction, modified to reflect state (daily) job satisfaction (see Judge & Ilies, 2004). On each working day, participants were asked to indicate the extent to which they agreed with five statements about their jobs (1 = “strongly disagree”; 5 = “strongly agree”). Sample items include “Today, I am fairly satisfied with my job” and “Today, I am finding real enjoyment in my work.” To confirm my prediction that these three items loaded onto one latent factor, I conducted a multilevel confirmatory factor analysis (CFA) in Mplus 7.3 (Muthén & Muthén, 1998-2012). The fit indexes provided support for a one factor solution and the factor loadings at the within-person level were 0.74, 0.63, 0.88, and 0.78 (RMSEA = 0.07, CFI = 0.98).

Ability to Attend Factors. This construct was measured by using the method used by Bardsley and Rhodes (1996). Participants were asked to indicate on a five-point scale (1 = “Not at all”; 5 = “very much”) “How unlikely or likely is each of the following a factor in your departure time today?” Factors included child care, care of others (not children), auto problems, general transportation problems, personal illness, weather-related problems, and other, non-work related reasons. High scores reflect a strong influence of these factors on attendance on a specific day whereas low scores reflect a weak influence of these factors on attendance on a specific day. As such, this scale is intuitively better understood as measuring the presence of external pressures to not attend (i.e., inability to attend factors). Therefore, hereafter in the paper I use the more intuitive term “inability to attend factors.” To confirm my prediction that these three items loaded onto one latent factor, I conducted a multilevel confirmatory factor analysis (CFA) in Mplus 7.3 (Muthén & Muthén, 1998-2012). The fit indexes provided support for an overarching one factor solution (RMSEA = 0.05).

Conscientiousness. Trait conscientiousness was measured by using the Big Five Inventory (IPIP; Goldberg et al., 2006). Participants rated their agreement with several statements (1 = “strongly disagree”; 5 = “strongly agree”). A sample item for trait conscientiousness is “I am always prepared.” Cronbach’s alpha for this scale was .78.

Data Analysis Procedures

To test all of my hypotheses I employed linear⁵ mixed effects regression to account for the nesting of observations within individuals (Pinheiro, Bates, DebRoy, & Sarkar, 2014). A mixed model is a particularly useful statistical model used for providing accurate estimates of standard errors (so as to assess statistical significance) by taking into account data clustering. Such a modelling approach allows within- and between-person differences to be modeled without violating the assumption of independence (Bliese, 2000; Kreft & De Leeuw, 1998; Raudenbush & Bryk, 2002).

Following Hofmann and Gavin (1998), and given that the focus of the current paper is in within-person relationships, I used a person mean centering approach in order to obtain information on the unique within-person associations among Level-1 variables that are independent from any between-person associations (Enders & Tofighi, 2007). Doing so provides certain computational advantages, such as reducing the multicollinearity in the slope-intercept correlation and facilitating model estimation. In addition, person mean centering provides un-confounded estimates of intercept variance and pooled within-group slope estimates and ensures that cross-level interactions are indeed cross level (Hofmann & Gavin, 1998; Enders & Tofighi, 2007). Under group mean centering the meaning of the intercept changes to being the expected value of Y_{ij} for an individual whose X_{ij} value is equal to their respective mean.

The multilevel analysis strategy began by examining whether significant within-person variance, σ^2 , existed in the model constructs, particularly the two dependent

⁵ Given concerns with skewness and kurtosis found in attendance data (Hammer & Landau, 1981), I also ran analyses using a zero inflated negative binomial mixed effects regression, but this did not change the substantive findings of the study.

variables: early departure and late departure. In all analyses, intercepts and slopes were specified as random and I used a first-order autoregressive structure (AR1) given the repeated-measures data. I also computed an R^2 effect size statistic for the mixed model by using the formula proposed by Edwards, Muller, Wolfinger, Qaqish, and Schabenberger (2008).

In the current paper, the mediational analyses involve relationships among variables at the same level (1-1-1) with the exception of trait conscientiousness which represents a cross-level mediation model (2-1-1). In all analyses, and following Zhang, Zyphur, and Preacher (2009), the antecedent, mediator, and outcome variables were all group mean centered with the group means entered at Level-2 so as to address the possible confounding of within-person and between-person effects in the context of multi-level mediation (Kreft & De Leeuw, 1998). In the results section, I report the within-person average causal mediation effect (ACME), average within-person direct effect (ADE), and total within-person effect estimates for all models along with their 95% confidence intervals which were calculated using a nonparametric bootstrap of 1000 bootstrap iterations (Tingley, Yamamoto, Hirose, Keele, & Imai, 2014).

Multilevel Power and Sensitivity Analysis

Given concerns regarding multilevel power due to sample size and missing data, I followed Snijders and Bosker (1999) and conducted a post-hoc sensitivity analysis to determine the smallest detectable effect size given my data and the degree of clustering within an individual (i.e., ICC). This was done following the formulas and procedures recommended by Snijders and Bosker (1999; see also article by Snijders, 2005) using the

ICCs of the existing data to adjust the sample size based on the design effects, which is determined by the extent to which observations are clustered within an individual (i.e., ICC of the outcome) and the average sample size.

Using the adjusted sample size (or “effective N”), I conducted sensitivity analyses in a GLM framework to determine the smallest detectible standardized effect sizes in my data when including 5 predictors in the model. These were $f^2 = 0.07$ and $f^2 = 0.10$ when predicting early and late departure respectively, which correspond to a conventionally small-to-medium effect size (where small = .02, medium = .15, and large = .35; Murphy & Myers, 2004). Therefore, it was not possible to detect statistical significance for very small effect sizes--those smaller than 0.07 for early departure and 0.10 for late departure. However, I had 80% power to detect statistically significant within-person effects at or above $f^2 = 0.07$ and $f^2 = 0.10$ for early and late departure respectively.

RESULTS

The analysis section of the current paper proceeds as follows. First, descriptive and reliability statistics are presented for all study variables along with their zero-order correlations at the between-person and within-person levels. These results are featured in Tables 1 and 2. Next, given the nested nature of the data, it becomes important to establish the degree to which observations are dependent by examining the percentage of variance that resides at the between person level for all the constructs that have been posited to operate at the within person level. These results are featured in Table 3 and support the use of multilevel modeling due to the existence of substantial dependence. Next, the paper proceeds to evaluate the hypotheses one by one, starting from the main effect of intention on behavior (Tables 4 and 5) and concluding with the multilevel mediation analyses (Tables 6-13).

Sample and Study Variable Descriptive Statistics

Tables 1 and 2 feature raw means, standard deviations, and reliabilities of, as well as correlations between the main study variables. As can be seen in Table 1, a high degree of reliability was found across all study measures. Related to attendance⁶, the average arrival time of employees was 7:48 AM (7:30 AM +17.66 minutes), the average early departure time was 5 minutes, and the average late departure time was 7 minutes.

⁶ Appendix C contains individual-level graphs of early and late departure across time points.

Looking at Table 2, and the correlation matrix, many relationships are observed to be significant, especially at the within-person level where the sample size is greater. I also computed day-to-day, serial, correlation matrices for arrival time, departure time, early departure, and late departure. As can be seen in Tables 3 – 6, there is substantial dependency among time points in the arrival and departure time of employees, but not so much in their instances of early departure and late departure.

Test of Hypotheses 1 & 2: The Relationship between Attendance Intentions and Attendance Behavior

Before proceeding to test hypotheses, I examined the intraclass correlation coefficient (ICC1; Bliese, 2000) for both early departure and late departure. Table 7 presents the results of these analyses. Early departure yielded an ICC of .10 whereas late departure yielded an ICC of .27 indicating that the between-person variance explained 10% and 27% of the variance in early and late departure respectively. This implies that the majority of variance (90% and 73% for early departure and late departure respectively) lies at the within-person level. Moreover, as can be seen in Table 7, all variables displayed significant variation. This finding is particularly important, since it suggests that the TPB constructs and attendance behaviors can indeed display within-person variation. In fact, in many cases the majority of variance to be explained lies at this level. Given these results, I proceeded to test my hypotheses by running a series of mixed effects models in which I regressed the dependent variables of early departure and late departure on all the four TPB constructs. Results from these two models are featured in Tables 8 and 9.

The first two hypotheses concern the relationship between attendance intentions and attendance behavior. Specifically, a positive within-person correlation was hypothesized. As can be seen in Table 8, intentions to depart early had a significant positive within-person association with early departure ($\gamma = 2.71, p < 0.01$). Practically, this means that a one point increase in early departure intention is associated with leaving earlier from an individual's average departure time by almost 3 minutes. The R^2 value for this model was 0.64. Similarly, as can be seen in Table 5, intentions to depart late had a significant positive within-person association with late departure ($\gamma = 3.37, p < 0.01$). Practically, this means that a one point increase in late departure intention is associated with leaving later from an individual's average departure time by slightly more than 3 minutes. The R^2 value for this model was 0.67. In summary, hypothesis 1 and 2 were supported and intentions had a large effect on behavior.

Looking more at both models, it can be seen that the only other significant predictor in both models is arrival time, although the effect is small. Specifically, arrival time had a significant positive within-person association with early departure, but a significant negative within-person association with late departure. That is, on days that people arrive later, they leave earlier whereas on days that people arrive earlier they leave later. None of the other TPB predictors had significant effects on the two departure behaviors. In light of the TPB, this is not unexpected since intention is the fundamental motivational conduit that connects the proximal predictors to departure behavior. This mediating role of intention is tested next.

Multilevel Mediation Analyses

Hypotheses 3 and 4 are concerned with whether intentions mediate the relationship between specific attitude, norms, and PBC and departure behavior. To test each mediation hypothesis all variables in the analyses were person mean centered with their means entered in the multilevel model (Zhang et al., 2009). The Average Causal Mediation Effect (ACME), Average Direct Effect (ADE), and total effect for each mediation analysis are featured in Tables 10-14. First, in Table 10, intentions mediated the effect of attitude ($ACME = 0.54, p < 0.01$) and PBC ($ACME = 0.64, p < 0.01$) on early departure whereas the indirect effect of early departure norms was not significant at the 0.05 level or below ($ACME = 0.02, p = 0.09$). In other words, a more favorable attitude and higher perceived control concerning early departure lead to a higher intention to depart early, which then leads to actually departing earlier from work. Furthermore, although the ADE and total effect were not significant it is legitimate to conclude that intentions fully mediated the effects of specific attitude and PBC on early departure. In fact, there is a relatively large consensus among statisticians that the total effect (c) should not be used as a 'gatekeeper' for tests of mediation for various reasons (see Hayes, 2009; Shrout & Bolger, 2002). These findings lend support to hypotheses 3a and 3c and partial support to hypothesis 3b.

Second, looking at Table 11, none of the indirect paths was significant, thus falsifying hypotheses 4a, 4b, and 4c. Although I elaborate in the discussion section on this unexpected finding, one possibility is that one's intention to stay later at work may entirely depend on one's actual ability to do so, a hypothesis that is tested in Appendix A.

Hypotheses 5-12 are concerned with whether specific attitude, norm, and PBC mediate the effects of job satisfaction, inability to attend factors, and trait conscientiousness on intentions concerning departure behavior. When predicting intention to depart early, as can be seen in Tables 12, 14, and 116, the effects of job satisfaction and inability to attend were both mediated by early departure attitude and PBC. Early departure norms did not mediate the effects of any of the independent variables. Higher momentary job satisfaction led to a less favorable attitude concerning departing early, which in turn decreased the likelihood of intending to depart early ($ACME = -0.04, p < 0.05$). Interestingly, higher momentary job satisfaction also led to a higher perception of behavioral control over departing early, which increased the likelihood of intending to depart early ($ACME = 0.06, p < 0.01$). Similarly, the effects of inability to attend factors on intention to depart early were also mediated by early departure attitude and PBC concerning early departure. The presence of inability to attend factors led to a more favorable attitude concerning early departure ($ACME = 0.04, p < 0.01$) and, interestingly, an increased perception of behavioral control concerning early departure ($ACME = 0.06, p < 0.01$), which both led to a higher intention to depart early. In turn, as was supported in hypotheses 3a and 3c, early departure intention mediated the relationship of specific attitude and PBC concerning early departure on early departure behavior. On the other hand, none of the hypothesized mediation paths for late departure was significant, an unexpected finding that is discussed further in the Discussion section of the paper. Therefore, for late departure, the only focal relationship that was found to be significant was the impact of intention on behavior. However, the

reader should also refer to Appendix A for ancillary analyses. In summary, the mediation results only lend support to hypotheses 8a, 10a, 11a, 12a and falsify the remaining mediation hypotheses (H5a, H5b, H6a, H6b, H7a, H7b, H8b, H9a, H9b, H10b, H11b, H12b).

DISCUSSION

Summary of Findings

Daily attendance behaviors play an important role in the daily operations of organizations. Moreover, the psychological processes underlying such behaviors occur in real time at the level of individual persons. The current study is the first to investigate early and late departure behavior at the within-person level as well as adequately examine the psychological mechanisms that give rise to these two behaviors. In doing so, the paper used the TPB theoretical framework to synthesize in one unified model past predictors that have been examined in isolation from one another in the attendance literature (e.g., specific attendance attitude, job satisfaction, attendance motivation).

First, early and late departure behaviors exhibited substantial variability at the within-person level and so did the TPB constructs. Thus, there is credence in using the TPB at the within-person level and future researchers should consider using the theory in future longitudinal studies of attendance behaviors. Moreover, future research should focus on studying attendance behaviors at the within-person level since that is where the majority of variance resides. Moreover, doing so opens the possibility to establish guidelines and design interventions that optimally guide the psychological processes involved (Molenaar & Campbell, 2009). Therefore, a first contribution of the current

paper is that it establishes the appropriateness of studying daily attendance behaviors, as well as using the TPB, at the within-person level.

Second, the current study contributes to the body of knowledge by showing that early departure and late departure are distinct constructs at the within-person level worthy of study in their own right. Although the results of the study did not lend support to the proposed model when the focal outcome was late departure, the results did lend considerable (though not full) support to the proposed model when the focal outcome was early departure. Specifically, as predicted by the theory, intention to depart early mediated the effects of both specific attitude and perceived behavioral control on early departure behavior. Norms, however, had a non-significant indirect effect on early departure behavior via intention. My measure of norms included supervisors and coworkers as target referents. An interesting future possibility might be to include non-work related referents (e.g., family) and examine if the effect is stronger in this case. One's family may exert a strong effect on motivation and, thus, affect an employee's departure time.

Concerning the mechanisms through which distal predictors relate to early departure, specific attitude and perceived behavioral control both mediated the effects of momentary job satisfaction and the presence of (in)ability to attend factors on intention. Lower levels of job satisfaction were associated with a more positive attitude concerning early departure attitude, suggesting that when an employee is not satisfied on a given day he/she is more inclined to believe that removing him/herself from an unsatisfying workday (i.e., leaving earlier from work) is acceptable. Interestingly, my findings reveal

that an unsatisfied employee also perceives themselves as having less control over departing early. It is possible that the nature of the work on a given day makes an employee both unhappy and unable to depart earlier, such as is the case when there is a high and time-sensitive workload that must be accomplished. Next, the presence of inability to attend factors was associated with a more favorable attitude concerning early departure and a higher perception of behavioral control. It seems that in such cases, employees acknowledge and accept the inevitable outcome of having to leave earlier on a particular day and, thus, have a more favorable attitude regarding this behavior and perceive themselves as having more control to act in this manner.

No mediation was found for conscientiousness which could be attributed to the high scores employees rated themselves with and, thus, the restriction of range in this measure. Alternatively, it could be that conscientiousness operates through other mechanisms in the context of early and late departure or not at all. This is in line with some past studies which have found conscientiousness to be a weak, and inconsistent, predictor of daily attendance behaviors (e.g., Back et al., 2006). Future research might consider testing other individual difference variables, such as time management skills or procrastination (Burka & Yuen, 1983). Another possibility for future research is to measure and use state conscientiousness. In summary, however, the TPB fared quite well when trying to predict early departure behavior, a finding which constitutes another contribution of the current paper.

On the other hand, the theory was not successful in explaining late departure behavior. One notable exception was that intention did in fact carry a large effect on late

departure, which constitutes a fundamental prediction in the TPB framework. In addition, momentary job satisfaction and the presence of inability factors had a consistent significant negative total effect on intention to depart late. The more satisfied employees reported being and the more factors they reported as affecting their departure time, the lower their intention to depart late on that day. Although the negative total effect of inability to attend factors on late departure intentions is intuitive, the negative total effect of momentary job satisfaction on late departure intention is less intuitive. Perhaps, if an individual is less satisfied because he or she knows that he or she will have to stay late (perhaps due to a high workload), then the negative relationship between job satisfaction and actual late departure is not unexpected.

Quite unexpectedly, and unlike for early departure, for late departure no significant mediation paths were found as predicted by the theory. One possible explanation for this stark contrast could be that engaging in late departure requires more effort and a more conducive situation than that required by early departure. Supplemental analyses (see Appendix A) revealed that the effect of late departure intention on behavior was moderated by the presence of (in)ability to attend factors. Specifically, intention did not exert an effect on behavior on days in which individuals reported a high presence of external factors influencing their departure time. Such a moderation effect did not occur in the case of early departure behavior. This suggests that engaging in late departure is less straightforward than engaging in early departure. It has been argued that strong, low ambivalence, attitudes should be more likely to guide behavior than weak attitudes (Krosnick & Petty, 1995). Therefore, another possibility could be that individuals held

strong, low ambivalence, attitude concerning early departure, possibly because such a behavior is counterproductive and goes against the organizational attendance policy. In contrast, employees may have held a weak, high ambivalence, attitude concerning late departure, possibly because such a behavior was not associated with rewards or sanctions. Future research should examine these possibilities by utilizing a bigger sample of individuals and incorporating more potential moderators of the antecedent-intention-behavior relationships.

It is also interesting to note that arrival time yielded significant relationships with both early and late departure. When an employee arrived later, compared to his/her mean arrival time, the more likely it was for that employee to depart earlier from work. Similarly, when an employee arrived earlier, compared to his/her mean arrival time, the more likely it was for that employee to depart later from work. Perhaps employees arrived earlier when they knew the day was going to be busy and then had to stay later so as accomplish their work. On the other hand, employees may have arrived later than normal because they knew the day was not going to be particularly busy and, in turn, they may have left earlier because the day was indeed not busy.

In conclusion, Figures 3 and 4 summarize and depict the supported paths in the proposed models as laid out by the TPB. Clearly, the TPB is successful in elucidating the psychological mechanisms behind early departure, but unsuccessful in doing so for late departure. Furthermore, the proximal and distal antecedents behind early and late departure cannot be assumed to be the exact same with the notable exception of intention. This is reminiscent of the theoretical distinction of organizational citizenship behavior

(OCB) and counterproductive work behavior (CWB). In fact, some scholars (e.g., Bowling et al., 2010) have cast early departure as a CWB and late departure as an OCB. On a theoretical level, this paper can be seen as supporting the OCB-CWB distinction (e.g., Dalal, 2005) and, thus, it becomes easier to comprehend why the differences in relationships exist.

Limitations

Although the experience-sampling methodology employed in the current study allows for the examination of research questions not answerable by between-person studies, I note certain important limitations of my findings. First, although the dependent variable (i.e., departure time) was measured objectively, the majority of predictors (i.e., distal predictors, mediators) were measured with self-reports, which raised the question of whether common method bias explains some of the results. However, by using person-centered scores for the predictors in the within-person analyses the influence of between-person effects that typically inflate relationships between self-rated scores was eliminated.

Second, although repeated measures across time were collected, the relationships between variables measured at the same time cannot be conclusively viewed as causal. For example, in the mediation analyses, the predictor and mediator were collected at the same point in time. Thus, the correlational nature of the ESM design means that causal conclusions cannot be drawn from the concurrent Level-1 analyses.

Third, although not a limitation per se, my sample of Greek employees may be unique and may not generalize to the broader population of employees in other

organizations and/or countries. Related to this point of generalizability, the current model was designed to be applied to traditional worktime schedules and its findings should not be generalized to alternative work schedule situations. Although I suspect that a traditional schedule characterizes the majority of jobs across the world, recently many organizations have been experimenting with alternative time schedules. Therefore, future research should attempt to examine the current model and its applicability to such situations.

Finally, another limitation of the current study could be argued to be the relatively low sample size and the large proportion of missing data for the survey measures. By typical between-person design standards, the number of participants in the current study would not be considered large, suggesting problems of statistical power. For analyses, based on within-person relationships, however, the number of observations ($N = 322\text{--}540$) was quite sufficient. The sample size is also similar to that used in other multilevel research in organizational psychology (e.g., Ilies & Judge, 2002; Mathieu & Rapp, 2009). In addition, the post-hoc sensitivity analyses conducted showed that the study was sufficiently powered to detect medium and large effect sizes.

Conclusion

The current dissertation addressed gaps in the literature by examining within-person fluctuations in TPB, and other, cognitions and departure behavior. The advantage of using a within-person design is that its findings inform practitioners on how to influence departure behavior on a given day and for a given individual. Between-person studies cannot be used to infer, and thus inform, whether an individual is more likely to

engage in a certain type of departure behavior on a particular day based on his or her cognitions. Although late departure proved to be more elusive to explain and predict than early departure, it is clear from the results of this study that intention exerts a powerful force on both departure behaviors and, consequently, it should be the primary target focus in efforts to influence workplace departure behavior. This finding corroborates theories of attitude-behavior relationships and goal theories that all converge on the idea that intention is the key determinant of behavior (see summaries by Austin & Vancouver, 1996; Maddux, 1999). An ample body of literature exists that offers a variety of strategies, methods, and interventions to change intentions (Bootzin, 1975; Fishbein & Ajzen, 2010; Kanfer & Goldstein, 1986). In the current situation, this is particularly true for when the goal is to influence late departure for which intention was the only significant predictor found. Intentions could arguably be influenced by a stricter enforcement of a company's attendance disciplinary policy by management (e.g., Rosse & Hulin, 1985), something that can arguably influence one's attendance intentions (as well as specific attendance attitude). Besides a stronger "stick," having a "carrot" to acknowledge, encourage, and reward employees for putting more time towards their work can have desirable effects on daily attendance behaviors. For example, in an early study by Hermann, Ana, Domínguez, Montes, and Hopkins (1973), daily small cash bonuses for coming promptly to work over a 49 week treatment period led to a strong reduction of employee tardiness. In the case of early departure there is more that can be done, since early departure intentions can be influenced directly by early departure attitude and PBC, and indirectly by influencing job satisfaction and inability to attend

factors. In turn, so as to influence early departure, practitioners should focus on changing early departure attitudes and efficacy beliefs, job satisfaction, and attempt to provide resources for employees so as to enhance their ability to fully attend work on a given day. For example, organizations could consider offering services (e.g., on-site child care) to their employees that can enhance their ability to remain at work throughout the day. This is likely to help with habitual lateness. In addition, a childcare center that possesses the capacity to care for a sick child (rather than asking the parent to take the child home) is likely to help with attendance on a particular day (i.e., when the child is sick). Kossek and Nichol (1992) found that on-site child care positively influenced users' attitudes toward managing work and child care responsibilities.

As a practical implication, this research supports that, rather than a supervisor making general statements and cautions to not engage in early departure and encourage late departure, the within-person approach would advocate and recommend that supervisors offer such cautions on specific days that are important. Employees should be made to understand that there are certain days, weeks, months of the year in which such behaviors are completely (un)acceptable. Furthermore, encouraging employees on such days to have a backup plan in case an unforeseen emergency arises (e.g., sick child), and therefore their ability to attend is hampered, would benefit both employees and organizations. This would affect intentions and cognitions on a particular day.

Other interventions could focus on teaching employees daily strategies and skills to increase their self-efficacy and PBC. Frayne and Latham (1987) found that increasing employee perceived self-efficacy through training led to better subsequent work

attendance. Employees with low self-esteem are more likely to perceive that they cannot cope with environmental demands, such as bad weather, transportation problems, work-family conflict situations. Therefore, teaching employees strategies on what to do when such specific instances appear could conceivably help with attendance on a particular day.

Finally, it is of paramount importance for supervisors to monitor and recognize the daily attendance of their employees as well as have communication on a one-to-one basis. By talking to the employee and understanding the cause of his or her job satisfaction, ability to be at work, specific attitude, and PBC, a supervisor may be able to take remedial steps (e.g., job rotation, lateral transfer, skills training, or active counseling; and ultimately help minimize incidents of early departure from work as well as develop their employees and, thus, grant them the ability to remain at work and act on their intentions to depart late on a particular day.

Table 1
Descriptive Statistics for Study Sample and Study Variables

	Mean	Std. Deviation	Reliability/ICC (Consistency)
Gender (Male=0; Female=1)	0.74	0.44	-
Age	40.26	8.81	-
Marital (Single=0; Married=1)	0.75	0.43	-
Dependents	1.47	1.13	-
Family Size	2.53	1.26	-
Tenure	9.38	5.88	-
Commuting Time	28.44	13.63	-
Conscientiousness	4.24	0.43	0.78 ^a
Job Satisfaction	3.46	0.53	0.76
Inability to Attend Factors	2.38	0.75	0.97
Arrival Time	17.66	24.65	0.93
Intentions for Early Departure (ED)	2.31	1.11	0.91
Intentions for Late Departure (LD)	2.18	0.93	0.94
Norms for Early Departure (ED)	35.81	15.65	0.88
Norms for Late Departure (LD)	38.78	14.11	0.89
Perceived Behavioral Control (PBC) for Early Departure (ED)	3.11	0.86	0.81
Perceived Behavioral Control (PBC) for Late Departure (LD)	3.04	0.86	0.82
Attitude for Early Departure (ED)	3.34	1.25	0.97
Attitude for Late Departure (LD)	2.71	1.15	0.92
Early Departure Behavior (ED)	5.13	10.73	0.88
Late Departure Behavior (LD)	6.71	12.58	0.83

Note. N=56-57; The scale for Norms can range from 4-100. Reliability is computed by using the Type C Intraclass correlation coefficient using the average measures consistency definition across the 11 observation days (McGraw & Wong, 1996). ^a = Cronbach Alpha reliability coefficient.

Table 2
Zero-order Correlation Matrix among Study Variables

	Arrival	ED	LD	Intent ED	Intent LD	Att. ED	Att. LD	Norms ED	Norms LD	PBC ED	PBC LD	JS	Consc.	Inability to Attend
Arrival	1	0.03	0.16	0.18	0.08	0.03	-0.24	0.07	-0.34**	0.199	0.15	-0.28*	-0.27*	-0.05
ED	0.41**	1	-0.18	0.01	-0.18	0.06	-0.05	0.17	0.13	0.141	0.13	0.16	0.11	0.08
LD	-0.30**	-0.30**	1	0.07	0.32*	0.07	0.07	0.01	0.02	-0.11	0.29	-0.05	-0.03	-0.01
Intent ED	-0.06	0.17**	-0.11*	1	0.37**	0.21	0.06	0.19	0.11	0.24	0.15	-0.08	-0.34*	0.17
Intent LD	0.02	-0.11*	0.27**	-0.39**	1	-0.34**	0.38**	-0.15	-0.11	0.044	0.19	-0.06	-0.32*	0.10
Att. ED	-0.07	0.01	0.03	0.20**	0.01	1	-0.31	0.40**	0.37**	-0.14	-0.10	0.03	0.03	0.25
Att. LD	0.06	0.04	-0.01	-0.07	0.08	-0.34**	1	0.16	0.19	0.06	0.26	0.20	-0.06	0.21
Norms ED	-0.07	0.04	-0.09	0.20**	-0.14**	0.18**	0.05	1	0.87**	0.09	-0.01	0.05	0.03	0.19
Norms LD	-0.07	-0.06	-0.01	0.06	0.03	-0.05	0.06	0.57**	1	-0.04	-0.06	0.17	0.07	0.11
PBC ED	0.03	0.05	-0.09	0.24**	-0.28**	0.12*	0.01	0.26**	0.06	1	0.55**	-0.01	-0.15	0.03
PBC LD	-0.04	-0.02	0.09	0.13	-0.01	-0.02	0.08	0.16**	0.07	0.21**	1	0.09	-0.22	-0.02
JS	-0.04	0.05	0.04	0.02	-0.07	-0.13*	0.09	0.11*	0.02	0.21**	0.37**	1	0.42**	-0.12
Consc.	-	-	-	-	-	-	-	-	-	-	-	-	1	-0.05
Inab. Att.	0.09	0.19**	-0.18**	0.21**	-0.21**	0.11*	-0.05	0.08	-0.01	0.17**	-0.08	-0.06	-	1

Note. N_{Level-1} = 322-544 day observations (N = 544 day observations for correlations among Arrival, ED, and LD), N_{Level-2} = 56-57 individuals; Correlations under the diagonal represent within-person relationships whereas correlations above the diagonal represent Level-2 relationships; Within-person relationships are computed without entering random effects. ED = Early Departure, LD = Late Departure; Intent = Intention for the specified departure behavior; Att. = Specific attitude for the specified departure behavior; PBC = Perceived Behavioral Control; JS = Job Satisfaction; Consc. = Conscientiousness; Inab. Att. = Presence of Inability to Attend Factors; For pairwise deletion (N = 322) the within-person correlation between Arrival, ED, and LD were $r_{\text{Arrival \& ED}} = 0.49^{**}$,

$r_{\text{Arrival \& LD}} = -0.39^{**}$, and $r_{\text{ED \& LD}} = -0.37^{**}$

*p < 0.05

**p < 0.01

Table 3
Arrival Time Day to Day Inter-Correlations

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11
Day 1	1										
Day 2	0.79**	1									
Day 3	0.61**	0.58**	1								
Day 4	0.62**	0.79**	0.71**	1							
Day 5	0.89**	0.79**	0.66**		1						
Day 6	0.76**	0.77**	0.71**			1					
Day 7	0.61**	0.51**	0.56**	0.54**	0.54**	0.53**	1				
Day 8	0.72**	0.88**	0.45**	0.73**	0.74**	0.78**	0.53**	1			
Day 9	0.57**	0.71**	0.38**	0.43**	0.56**	0.49**	0.25	0.66**	1		
Day 10	0.73**	0.76**	0.36*	0.50**	0.61**	0.57**	0.38**	0.77**	0.72**	1	
Day 11	0.49**	0.66**	0.38**	0.48**	0.70**	0.53**	0.27	0.63**	0.44**	0.62**	1

Note. N = 49 - 57.

* p < 0.05

** p < 0.01

Table 4
Departure Time Day to Day Inter-Correlations

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11
Day 1	1										
Day 2	0.67***	1									
Day 3	0.64**	0.59**	1								
Day 4	0.40**	0.60**	0.58**	1							
Day 5	0.70**	0.74**	0.59**	0.54**	1						
Day 6	0.69**	0.71**	0.55**	0.56**	0.74**	1					
Day 7	0.56**	0.31*	0.40**	0.42**	0.40**	0.45**	1				
Day 8	0.53**	0.77**	0.42**	0.77**	0.73**	0.69**	0.50**	1			
Day 9	0.23	0.46**	0.38**	0.51**	0.36**	0.35*	0.30*	0.63**	1		
Day 10	0.55**	0.69**	0.44**	0.43**	0.54**	0.44**	0.32*	0.59**	0.43**	1	
Day 11	0.43**	0.64**	0.37**	0.40**	0.66**	0.46**	0.22	0.58**	0.28	0.60**	1

Note. N = 49 - 57.

* p < 0.05

** p < 0.01

Table 5
Early Departure Time Day to Day Inter-Correlations

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11
Day 1	1										
Day 2	0.56**	1									
Day 3	0.77**	0.58**	1								
Day 4	-0.13	-0.01	-0.02	1							
Day 5	0.27	0.46**	0.31*	-0.12	1						
Day 6	0.30*	0.42**	0.21	0.15	0.25	1					
Day 7	0.31*	-0.04	0.35*	0.21	0.14	0.19	1				
Day 8	0.42**	0.50**	0.36*	0.34*	0.35*	0.24	0.17	1			
Day 9	0.08	0.21	0.49**	0.47**	0.10	0.14	0.28*	0.53**	1		
Day 10	0.42**	0.60**	0.52**	0.03	0.65**	0.15	-0.07	0.29*	0.23	1	
Day 11	0.44**	0.71**	0.59**	0.12	0.49**	0.30*	-0.03	0.31*	0.23	0.62**	1

Note. N = 49 - 57.

* p < 0.05

** p < 0.01

Table 6
Late Departure Time Day to Day Inter-Correlations

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11
Day 1	1										
Day 2	-0.03	1									
Day 3	0.01	0.21	1								
Day 4	-0.12	0.72**	0.54**	1							
Day 5	-0.10	0.52**	0.36*	0.66**	1						
Day 6	0.13	0.43**	0.15	0.47**	0.34**	1					
Day 7	-0.03	0.01	0.37**	0.14	0.26	-0.02	1				
Day 8	0.04	0.68**	0.44**	0.85**	0.61**	0.49**	-0.01	1			
Day 9	0.04	0.33*	0.51**	0.53**	0.37**	0.18	0.32*	0.67**	1		
Day 10	-0.09	0.30*	0.36*	0.30*	0.12	0.04	0.01	0.31*	0.45**	1	
Day 11	-0.13	0.28*	0.54**	0.51**	0.42**	0.12	0.57**	0.31*	0.59**	0.41**	1

Note. N = 49 - 57.

* p < 0.05

** p < 0.01

Table 7
Unconditional Models of Level-1 Constructs

Construct	Intercept (τ_{00})		σ^2		ICC	% σ^2_{within}	N
	Variance	S.D.	Variance	S.D.			
Arrival	397.66 (403.44)	19.94 (20.09)	215.31 (174.82)	14.67 (13.22)	0.65 (0.70)	35 (30)	542 (322)
ED	11.18 (14.53)	3.34 (3.81)	103.91 (117.42)	10.19 (10.83)	0.10 (0.11)	90 (91)	542 (322)
LD	41.81 (18.07)	6.47 (4.25)	116.31 (70.96)	10.82 (8.42)	0.27 (0.20)	73 (80)	542 (322)
Intentions ED	0.51	0.72	0.70	0.83	0.44	56	322
Intentions LD	0.43	0.66	0.46	0.68	0.48	52	322
Attitude ED	1.27	1.13	0.46	0.68	0.71	29	322
Attitude LD	0.79	0.89	0.53	0.73	0.60	40	322
Norms ED	164.83	12.83	91.83	9.58	0.63	37	322
Norms LD	127.97	11.31	86.33	9.29	0.57	43	322
PBC ED	0.38	0.61	0.34	0.58	0.54	46	322
PBC LD	0.36	0.60	0.37	0.61	0.49	51	322
Job Satisfaction	0.08	0.29	0.21	0.45	0.29	71	322
Inability to Attend	0.49	0.70	0.14	0.38	0.75	25	322

Note. ED = Early Departure, LD = Late Departure, PBC = Perceived Behavioral Control, ICC = Intra-class Correlation, S.D.= Standard Deviation, S.E. = Standard Error. The ICC values for Arrival, ED, and LD are featured for both listwise (N = 322) and pairwise deletion (N = 542).

Table 8**Estimates of Fixed and Random Effects for Predicting Early Departure**

Variable	Estimate	S.E.	t value
Fixed Effects			
Intercept	5.87**	0.78	7.42
Arrival Time	0.29**	0.06	4.62
Intentions ED	2.71**	0.67	4.02
Attitude ED	0.29	0.80	0.36
Norm ED	-0.01	0.06	-0.11
PBC ED	0.54	0.95	0.57
Model R ²	0.64		
Random Effects			
Intercept <i>SD</i>	4.47		
Residual <i>SD</i>	7.70		

Note. N = 322 observations, 57 individuals; ED = Early Departure, S.E. = Standard Error.

All Level-1 variables are person mean centered.

* p < 0.05

** p < 0.01

Table 9**Estimates of Fixed and Random Effects for Predicting Late Departure**

Variable	Estimate	S.E.	t value
Fixed Effects			
Intercept	5.19**	0.77	6.70
Arrival Time	-0.23**	0.05	-4.44
Intentions LD	3.38**	1.06	3.19
Attitude LD	-0.57	0.58	-1.00
Norm LD	-0.07	0.04	-1.50
PBC LD	1.31	0.70	1.88
Model R ²	0.67		
Random Effects			
Intercept <i>SD</i>	4.27		
Residual <i>SD</i>	6.49		

Note. N = 322 observations, 57 individuals; LD = Late Departure, S.E. = Standard Error.

All Level-1 variables are person mean centered.

* p < 0.05

** p < 0.01

Table 10

Multilevel Mediation Results for Intentions Mediating the Effect of Attitude, Norm, and PBC on Early Departure

	Estimate	95% CI Lower	95% CI Upper
Attitude			
ACME	0.54**	0.15	1.01
ADE	0.10	-1.44	1.58
Total Effect	0.63	-0.94	2.14
Norm			
ACME	0.02	-0.004	0.05
ADE	0.04	-0.07	0.17
Total Effect	0.06	-0.06	0.19
PBC			
ACME	0.64**	0.18	1.20
ADE	0.24	-1.61	2.20
Total Effect	0.88	-1.023	2.74

Note. N = 322; ACME = Average Causal Mediation Effect; ADE = Average Direct Effect; PBC = Perceived Behavioral Control; C.I. = Confidence Interval.

All Level-1 variables are person mean centered with their means reintroduced.

* p < 0.05

** p < 0.01

Table 11

Multilevel Mediation Results for Intentions Mediating the Effect of Attitude, Norm, and PBC on Late Departure

	Estimate	95% CI Lower	95% CI Upper
Attitude			
ACME	0.29	-0.12	0.72
ADE	-0.23	-1.49	0.98
Total Effect	0.05	-5.76	11.91
Norm			
ACME	0.01	-0.02	0.05
ADE	-0.06	-0.16	0.05
Total Effect	0.05	-4.94	3.50
PBC			
ACME	-0.02	-0.50	0.47
ADE	1.20	-0.23	2.73
Total Effect	1.18	-2.18	2.80

Note. N = 322; ACME = Average Causal Mediation Effect; ADE = Average Direct Effect; PBC = Perceived Behavioral Control; C.I. = Confidence Interval.

All Level-1 variables are person mean centered with their means reintroduced.

* p < 0.05

** p < 0.01

Table 12

Multilevel Mediation Results for Early Departure Attitude Mediating the Effect of Job Satisfaction, Inability to Attend, and Trait Conscientiousness on Early Departure Intention

	Estimate	95% CI Lower	95% CI Upper
Job Satisfaction			
ACME	-0.04 [*]	-0.09	-0.01
ADE	0.001	-0.19	0.19
Total Effect	0.23	-6.24	6.14
Inability to Attend			
ACME	0.04 [*]	0.01	0.10
ADE	0.44 ^{**}	0.18	0.17
Total Effect	0.48 ^{**}	0.01	0.24
Trait Conscientiousness			
ACME	0.01	-0.03	0.03
ADE	0.01	-0.20	0.20
Total Effect	0.01	-0.20	0.20

Note. N = 322; ACME = Average Causal Mediation Effect; ADE = Average Direct Effect; PBC = Perceived Behavioral Control; C.I. = Confidence Interval.

All Level-1 variables are person mean centered with their means reintroduced. Conscientiousness is grand mean centered.

^{*}p < 0.05

^{**}p < 0.01

Table 13

Multilevel Mediation Results for Late Departure Attitude Mediating the Effect of Job Satisfaction, Inability to Attend, and Trait Conscientiousness on Late Departure Intention

	Estimate	95% CI Lower	95% CI Upper
Job Satisfaction			
ACME	-0.01	-0.04	0.01
ADE	-0.19 [*]	-0.35	-0.01
Total Effect	-0.20 [*]	-0.37	-0.02
Inability to Attend			
ACME	0.02	-0.01	0.06
ADE	-0.41 ^{**}	-0.59	-0.22
Total Effect	-0.39 ^{**}	-0.57	-0.21
Trait Conscientiousness			
ACME	0.01	-0.02	0.02
ADE	0.03	-0.16	0.20
Total Effect	0.03	-0.69	0.76

Note. N = 322; ACME = Average Causal Mediation Effect; ADE = Average Direct Effect; PBC = Perceived Behavioral Control; C.I. = Confidence Interval.

All Level-1 variables are person mean centered with their means reintroduced. Conscientiousness is grand mean centered.

^{*}p < 0.05

^{**}p < 0.01

Table 14

Multilevel Mediation Results for Early Departure Norm Mediating the Effect of Job Satisfaction, Inability to Attend, and Trait Conscientiousness on Early Departure Intention

	Estimate	95% CI Lower	95% CI Upper
Job Satisfaction			
ACME	0.01	-0.01	0.04
ADE	-0.01	-0.21	0.21
Total Effect	0.01	-0.21	0.22
Inability to Attend			
ACME	0.02	-0.01	0.07
ADE	0.43 ^{**}	0.20	0.67
Total Effect	0.45 ^{**}	0.22	0.70
Trait Conscientiousness			
ACME	0.01	-0.02	0.02
ADE	0.01	-0.20	0.22
Total Effect	0.01	-0.21	0.21

Note. N = 322; ACME = Average Causal Mediation Effect; ADE = Average Direct Effect; PBC = Perceived Behavioral Control; C.I. = Confidence Interval.

All Level-1 variables are person mean centered with their means reintroduced. Conscientiousness is grand mean centered.

* p < 0.05

** p < 0.01

Table 15

Multilevel Mediation Results for Late Departure Norm Mediating the Effect of Job Satisfaction, Inability to Attend, and Trait Conscientiousness on Late Departure Intention

	Estimate	95% CI Lower	95% CI Upper
Job Satisfaction			
ACME	0.01	-0.01	0.01
ADE	-0.04	-0.26	0.16
Total Effect	-0.04	-0.26	0.16
Inability to Attend			
ACME	-0.01	-0.02	0.01
ADE	-0.53 ^{**}	-0.30	-0.75
Total Effect	-0.53 ^{**}	-0.30	-0.75
Trait Conscientiousness			
ACME	0.01	-0.20	0.24
ADE	0.01	-0.53	0.44
Total Effect			

Note. N = 322; ACME = Average Causal Mediation Effect; ADE = Average Direct Effect; PBC = Perceived Behavioral Control; C.I. = Confidence Interval.

All Level-1 variables are person mean centered with their means reintroduced. Conscientiousness is grand mean centered.

* p < 0.05

** p < 0.01

Table 16

Multilevel Mediation Results for Early Departure PBC Mediating the Effect of Job Satisfaction, Inability to Attend, and Trait Conscientiousness on Early Departure Intention

	Estimate	95% CI Lower	95% CI Upper
Job Satisfaction			
ACME	0.06**	0.01	0.12
ADE	0.01	-0.20	0.20
Total Effect	0.06	-0.14	0.25
Inability to Attend			
ACME	0.06*	0.01	0.13
ADE	0.43**	0.19	0.69
Total Effect	0.49**	0.25	0.74
Trait Conscientiousness			
ACME	0.01	-0.03	0.04
ADE	0.01	-0.19	0.22
Total Effect	0.01	-0.19	0.23

Note. N = 322; ACME = Average Causal Mediation Effect; ADE = Average Direct Effect; PBC = Perceived Behavioral Control; C.I. = Confidence Interval.

All Level-1 variables are person mean centered with their means reintroduced. Conscientiousness is grand mean centered.

*p < 0.05

**p < 0.01

Table 17

Multilevel Mediation Results for Late Departure PBC Mediating the Effect of Job Satisfaction, Inability to Attend, and Trait Conscientiousness on Late Departure Intention

	Estimate	95% CI Lower	95% CI Upper
Job Satisfaction			
ACME	0.03	-0.03	0.10
ADE	-0.19 [*]	-0.35	-0.02
Total Effect	-0.15 [*]	-0.31	-0.01
Inability to Attend			
ACME	0.01	-0.01	0.04
ADE	-0.42 ^{**}	-0.60	-0.23
Total Effect	-0.41 ^{**}	-0.59	-0.22
Trait Conscientiousness			
ACME	0.01	-0.01	0.01
ADE	0.03	-0.14	0.20
Total Effect	0.03	-0.13	0.21

Note. N = 322; ACME = Average Causal Mediation Effect; ADE = Average Direct Effect; PBC = Perceived Behavioral Control; C.I. = Confidence Interval.

All Level-1 variables are person mean centered with their means reintroduced. Conscientiousness is grand mean centered.

^{*}p < 0.05

^{**}p < 0.01

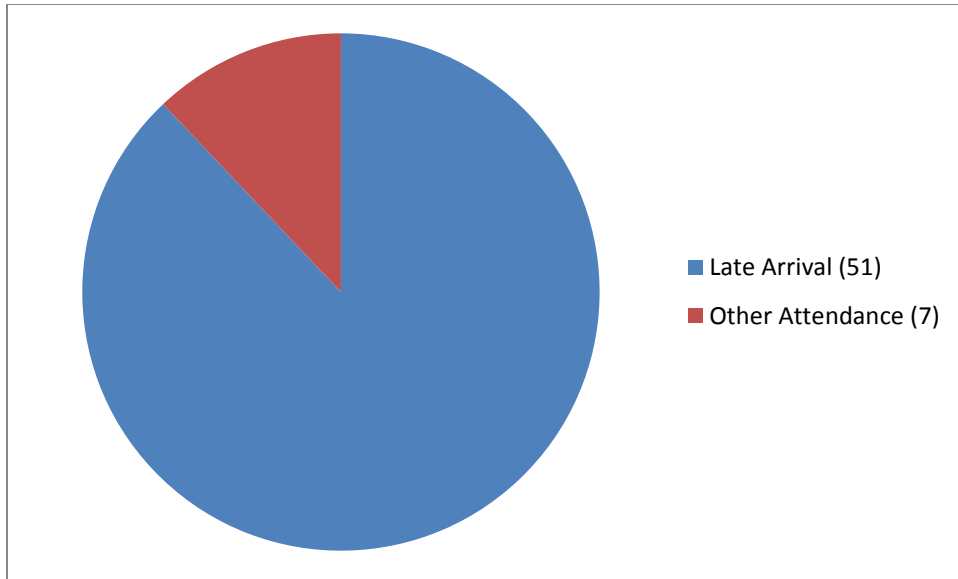


Figure 1
Frequencies of Studies Examining Late Arrival to those of Early Arrival, Early Departure, and Late Departure

Note. Numbers in parentheses represent the number of studies located in the literature that examine a particular daily attendance behavior.

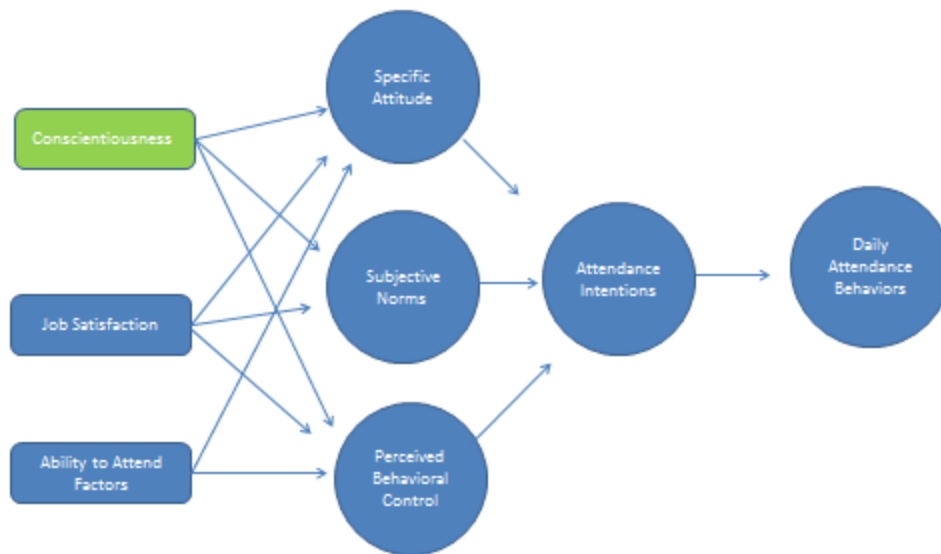


Figure 2
Proposed Theoretical Model

Note. Constructs in green color represent level-2 (i.e., between-person, trait) constructs whereas constructs in blue color represent level-1 (i.e., within-person, state) constructs. Constructs with dashed arrows represent control variables.

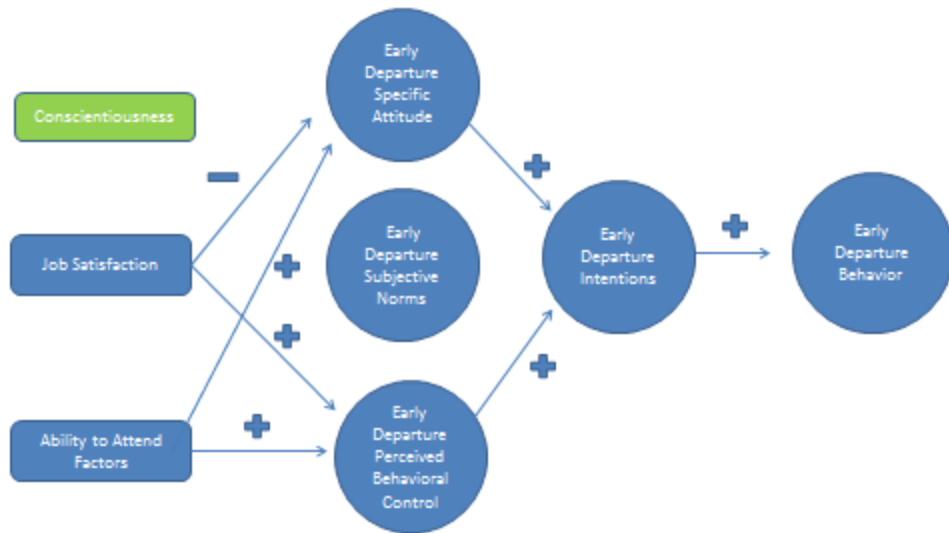


Figure 3
Graphical Depiction of the Supported Paths in the Proposed Model for Early Departure Behavior

Note. Constructs in green color represent level-2 (i.e., between-person, trait) constructs whereas constructs in blue color represent level-1 (i.e., within-person, state) constructs. A cross indicates a significant positive path whereas a dash indicates a significant negative path.

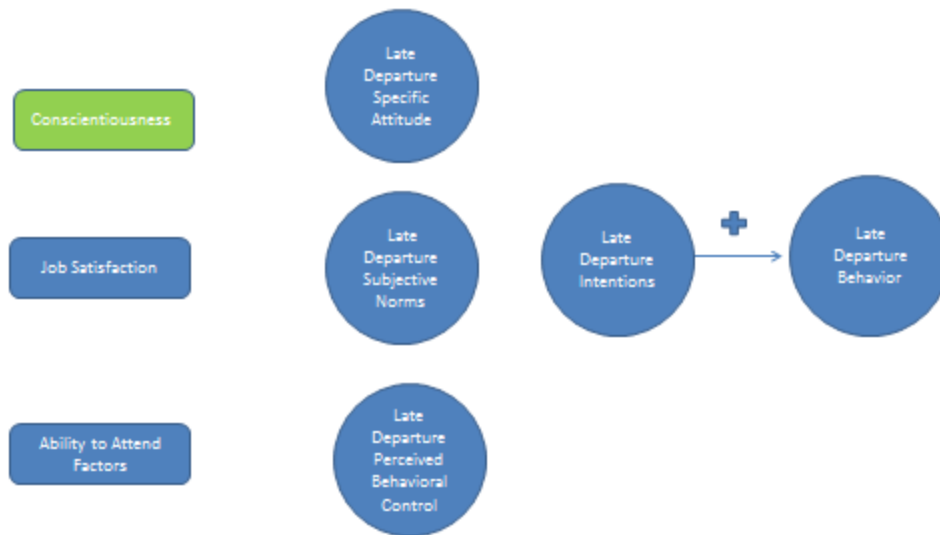


Figure 4
Graphical Depiction of the Supported Paths in the Proposed Model for Late Departure Behavior

Note. Constructs in green color represent level-2 (i.e., between-person, trait) constructs whereas constructs in blue color represent level-1 (i.e., within-person, state) constructs. A cross indicates a significant positive path whereas a dash indicates a significant negative path.

APPENDIX A

Alternative (Non-TPB/Non-Focal) But A Priori Hypotheses

Having presented and argued for the various linkages in the model, I now turn to a discussion of two sets of additional a priori hypotheses that, from a theoretical standpoint, are conceivable. Although some of these hypotheses were proposed in past conceptualizations of the TPB, they do not flow directly from current formulation of the theory and are nonetheless plausible a priori for other reasons. The first set of a priori hypotheses concerns the relationship between attendance intention and attendance behavior. Specifically, and by using the same argument, this link can be theorized to be moderated by perceived behavioral control and/or the ability to attend factors. Steers and Rhodes's (1978) seminal paper on the process of attendance asserted that attendance is a multiplicative function of an employee's motivation to attend and an employee's ability to attend. Overall, it would not be unreasonable to build a parallel case and equate intentions to attend with motivation to attend and perceived behavioral control with ability to attend. For example, even though an employee has the intention of staying late at work he or she may not be able to act upon his or her intentions because a family related incident causes his or her workday to end earlier. Interestingly, in early formulations of the TPB it was suggested that "the effect of intention on behavior depends on perceived behavioral control" (Ajzen & Madden, 1986, p. 460). In early

formulations of the TPB, this role for PBC was intended instead of its role in the current formulations of the TPB. This role from moderator to antecedent was changed by researchers following empirical support (Fishbein & Ajzen, 2010). Nonetheless, evidence from studies showing the moderating role of “ability to attend” related variables (e.g., illness, family responsibility, commuting problems) on the relationship between attendance motivation and attendance behaviors substantiates this theoretical rationale (Bardsley & Rhodes, 1996; Erickson, Nichols, & Ritter, 2000; Jamal, 1981; Rhodes & Steers, 1990). In summary, it seems reasonable to predict that perceived behavioral control and ability to attend factors moderate the intention-behavior relationship.

AH1: Perceived behavioral control moderates the relationship between attendance intentions and attendance behavior, such that the relationship is attenuated when perceived behavioral control is high.

AH2: Ability to attend factors moderate the relationship between attendance intentions and attendance behavior, such that the relationship is attenuated when ability to attend is low.

The second set of a priori hypotheses concerns the direct relationship between conscientiousness and attendance behavior as well as the direct relationship between state job satisfaction and attendance behavior. Specifically, it is plausible that the ability to attend factors moderate these two relationships in such a way that the two relationships are nullified when factors that do not grant one the ability to attend are present (e.g., serious personal illness). Using a situational strength argument (see Meyer, Dalal, & Hermida, 2010 for a review), one can conceptualize the presence of factors that make one

unable to attend as a strong situation that both limits the variability in behavior and does not allow for personal characteristics (i.e., personality, cognitions) to influence behavior. Therefore, I would expect stronger relationships to appear when there are no limiting factors (i.e., high ability to attend) and weaker relationships to appear when limiting factors are present (i.e., low ability to attend).

AH3: Ability to attend factors moderate the relationship between conscientiousness and attendance behavior, such that the relationship is attenuated when ability to attend is low.

AH4: Ability to attend factors moderate the relationship between job satisfaction and attendance behavior, such that the relationship is attenuated when ability to attend is low.

Results of A Priori Multilevel Moderation Hypotheses

Appendix A hypotheses 1-4 concern moderation relationships. For these analyses, all predictors were group mean centered, since this is a useful way to combat multicollinearity between predictor variables and get pure estimates of within-person effects. Significant interactions were plotted by following the guidelines of Preacher, Curran, and Bauer (2006).

Appendix A hypotheses 1a and 1b concern whether the relationship between intentions and behavior is moderated by perceived behavioral control. As can be seen in Table 1 of Appendix A, these two hypotheses were not supported. As expected, intentions had a significant positive effect on early departure ($\gamma = 2.81, p < 0.01$) and late departure ($\gamma = 3.59, p < 0.01$) behavior. In addition, perceived behavioral control did not

have a significant main effect on early and late departure behavior ($\gamma_{ED} = 0.39, p > 0.05$; $\gamma_{LD} = 1.24, p > 0.05$). The intention * PBC interaction was also non-significant for both early ($\gamma = 0.01, p > 0.05$) and late departure ($\gamma = 1.22, p > 0.05$).

Appendix A hypotheses 2a and 2b concern whether the relationship between intentions and behavior is moderated by inability to attend factors. As can be seen in Table 2 of Appendix A, the moderation was significant only in the case of late departure ($\gamma_{ED} = -0.01, p > 0.05$; $\gamma_{LD} = -3.52, p < 0.05$). Therefore, Hypothesis 14b was supported whereas Hypothesis 14a was not. As before, intentions had a significant positive effect on early departure ($\gamma = 2.78, p < 0.01$) and late departure ($\gamma = 3.14, p < 0.01$) behavior. In addition, ability to attend factors had a significant effect on late departure ($\gamma = -2.34, p < 0.01$), but a non-significant effect on early departure ($\gamma = 1.23, p > 0.05$). Specifically, when outside factors were reported as influencing departure time the likelihood of late departure decreased. Figure 1 of Appendix A shows the plot of the significant interaction which was plotted by comparing the relationship of intention to late departure at 2 standard deviations below (i.e., green line; $\gamma = 0.59, p > 0.05$) and 2 standard deviations above (i.e., black line; $\gamma = 4.34, p < 0.01$) the mean of inability to attend factors as well as at its mean (i.e., red line; $\gamma = 4.68, p < 0.01$). In short, the significant positive relationship between intention for late departure and actual late departure weakens as inability to attend increases. The relationship becomes non-significant when an individual reports that various factors will greatly affect their departure time for the day. In other words, intention does not matter under high levels of inability to attend factors. This finding can

help reconcile the presence of a lack of mediation when predicting late departure behavior.

Appendix A hypotheses 3a and 3b concern whether the relationship between conscientiousness and behavior is moderated by inability to attend factors ($\gamma_{ED} = -4.49, p > 0.05$; $\gamma_{LD} = 1.47, p > 0.05$). As can be seen in Table 3 of Appendix A, these two hypotheses were not supported. Inability to attend factors displayed a similar relationship with early and late departure behavior as above. In addition, conscientiousness did not have a significant effect on attendance behavior ($\gamma_{ED} = -1.13, p > 0.05$; $\gamma_{LD} = -1.69, p > 0.05$).

Appendix A hypotheses 4a and 4b concern whether the relationship between state job satisfaction and behavior is moderated by inability to attend factors ($\gamma_{ED} = 3.05, p > 0.05$; $\gamma_{LD} = 1.39, p > 0.05$). As can be seen in Table 4 of Appendix A, these two hypotheses were not supported whereas inability to attend factors still had a significant positive and a significant negative effect on early and late departure behaviors respectively. In addition, job satisfaction did not have a significant main effect on early and late departure behavior ($\gamma_{ED} = 1.45, p > 0.05$; $\gamma_{LD} = 0.51, p > 0.05$). Appendix A Figure 2 offers a visual depiction of the supported a priori hypotheses.

Appendix A Tables & Figures

Table 1
Moderation Analysis for PBC Moderating the Intention-Behavior Relationship

DV	Variables	Estimate	S.E.
Early Departure	Intercept	6.03**	0.81
	Arrival Time	0.28**	0.05
	Intention ED	2.81**	0.72
	PBC ED	0.39	1.01
	Intention ED*PBC ED	0.01	1.13
DV	Variables	Estimate	S.E.
Late Departure	Intercept	5.12**	0.78
	Arrival Time	-0.22**	0.05
	Intention LD	3.59**	0.78
	PBC LD	1.24	0.73
	Intention LD*PBC LD	1.22	0.95

Note. N = 322; S.E. = Standard Error, PBC = Perceived Behavioral Control, DV = Dependent Variable; LD = Late Departure, ED = Early Departure

*p < 0.05

**p < 0.01

Table 2
Moderation Analysis for Inability to Attend Factors Moderating the Intention-Behavior Relationship

DV	Variables	Estimate	S.E.
Early Departure	Intercept	5.93**	0.81
	Arrival Time	0.28**	0.07
	Intention ED	2.78**	1.05
	Inability to Attend Factors	1.23	2.79
	Intention*Inability to Attend Factors	-0.01	1.56
DV	Variables	Estimate	S.E.
Late Departure	Intercept	4.94**	0.76
	Arrival Time	-0.23	0.05
	Intention ED	3.14**	0.67
	Inability to Attend Factors	-2.34**	1.43
	Intention*Inability to Attend Factors	-3.52**	1.58

Note. N = 322; S.E. = Standard Error, DV = Dependent Variable; LD = Late Departure, ED = Early Departure

*p < 0.05

**p < 0.01

Table 3

Moderation Analysis for Inability to Attend Factors Moderating the Conscientiousness-Behavior Relationship

DV	Variables	Estimate	S.E.
Early Departure	Intercept	6.05 ^{**}	0.81
	Arrival Time	0.29 ^{**}	0.07
	Conscientiousness	-1.13	1.87
	Inability to Attend Factors	4.10 ^{**}	1.57
	Conscientiousness*Inability to Attend Factors	-4.49	4.46
DV	Variables	Estimate	S.E.
Late Departure	Intercept	5.15 ^{**}	0.79
	Arrival Time	-0.22 ^{**}	0.06
	Conscientiousness	-1.69	1.73
	Inability to Attend Factors	-4.03 ^{**}	1.25
	Conscientiousness*Inability to Attend Factors	1.47	1.85

Note. N = 322; S.E. = Standard Error, DV = Dependent Variable; LD = Late Departure, ED = Early Departure

*p < 0.05

**p < 0.01

Table 4

Moderation Analysis for Inability to Attend Factors Moderating the Job Satisfaction-Behavior Relationship

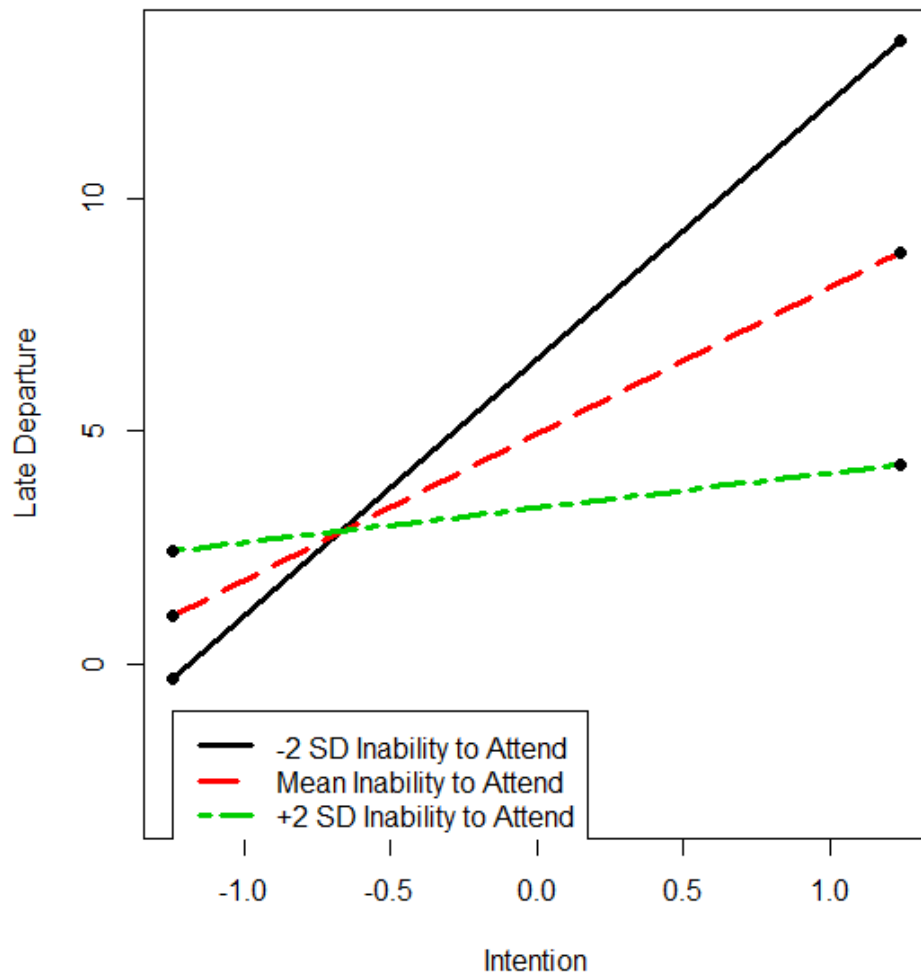
DV	Variables	Estimate	S.E.
Early Departure	Intercept	6.04 ^{**}	0.81
	Arrival Time	0.29 ^{**}	0.07
	Job Satisfaction	1.45	1.29
	Inability to Attend Factors	4.06 ^{**}	1.57
	Job Satisfaction*Ability to Attend Factors	3.05	5.22
DV	Variables	Estimate	S.E.
Late Departure	Intercept	5.09	0.79
	Arrival Time	-0.22 ^{**}	0.06
	Job Satisfaction	0.51	1.01
	Inability to Attend Factors	-2.95 ^{**}	0.75
	Job Satisfaction*Inability to Attend Factors	1.39	4.07

Note. N = 322; S.E. = Standard Error, DV = Dependent Variable; LD = Late Departure, ED = Early

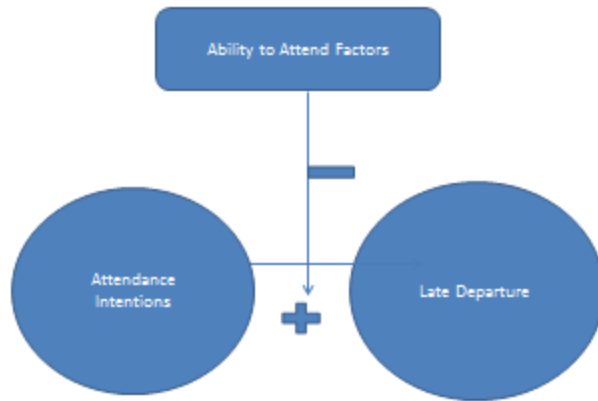
Departure

*p < 0.05

**p < 0.01



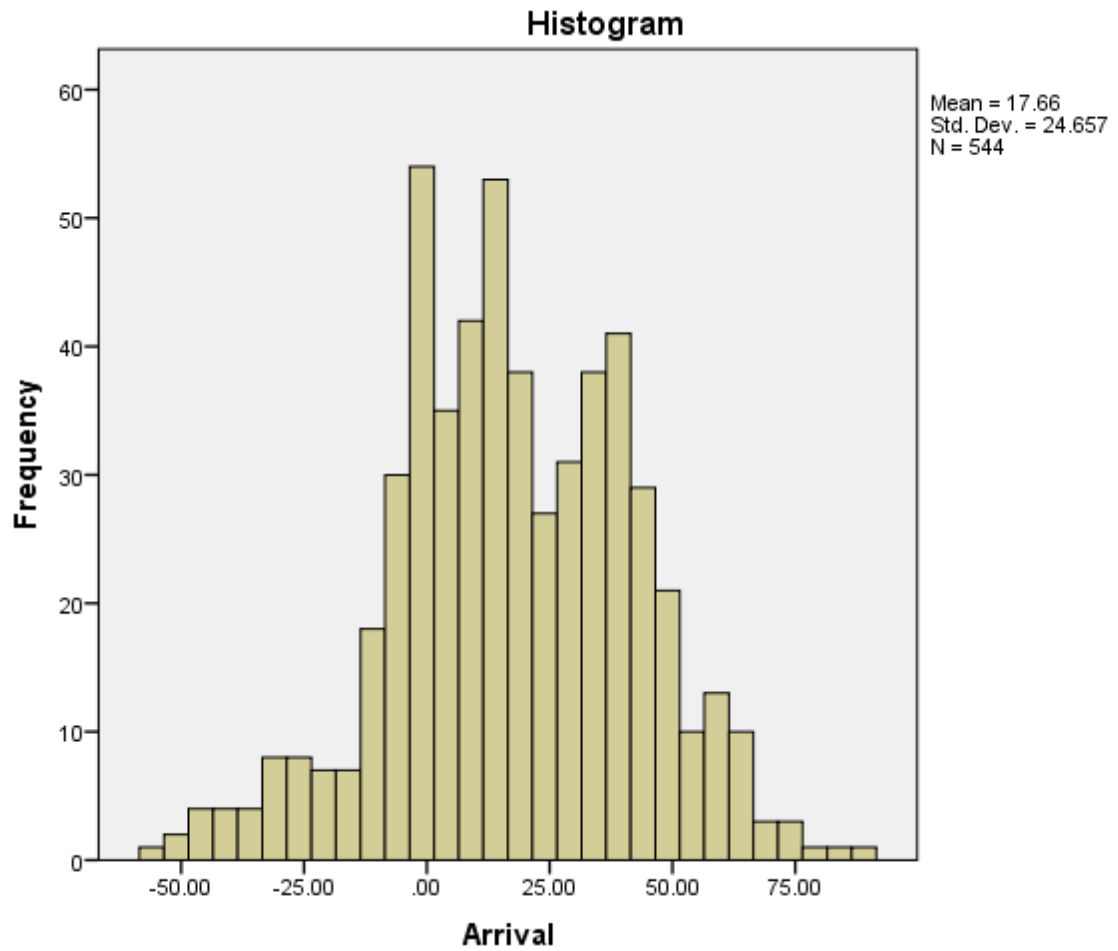
Appendix A Figure 1
Interaction between Intention to Depart Late and Inability to Attend Factors in the Prediction of Late Departure



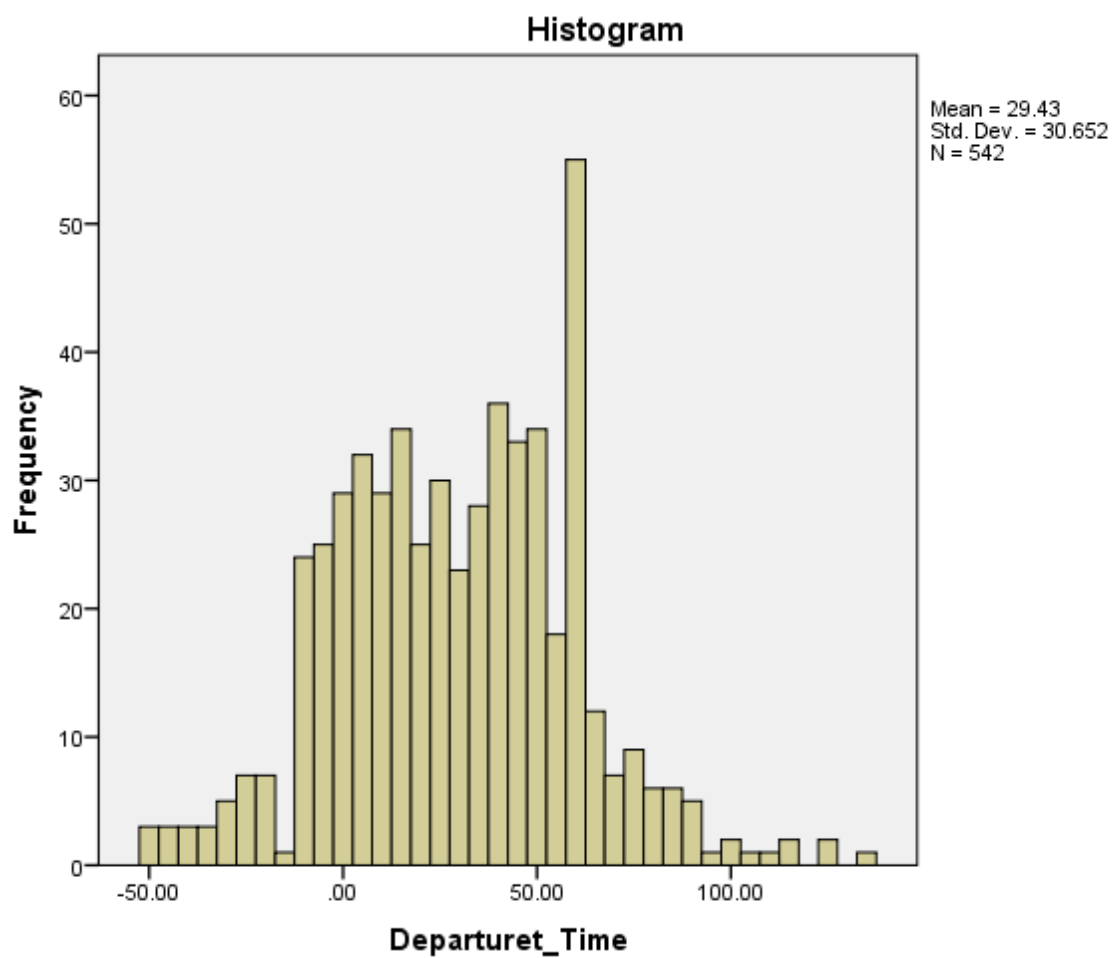
Appendix A Figure 2. Graphical Depiction of the Supported A Priori Paths in the Proposed Model for Late Departure Behavior

Note. Constructs in blue color represent level-1 (i.e., within-person, state) constructs. A cross indicates a significant positive path whereas a dash indicates a significant negative path.

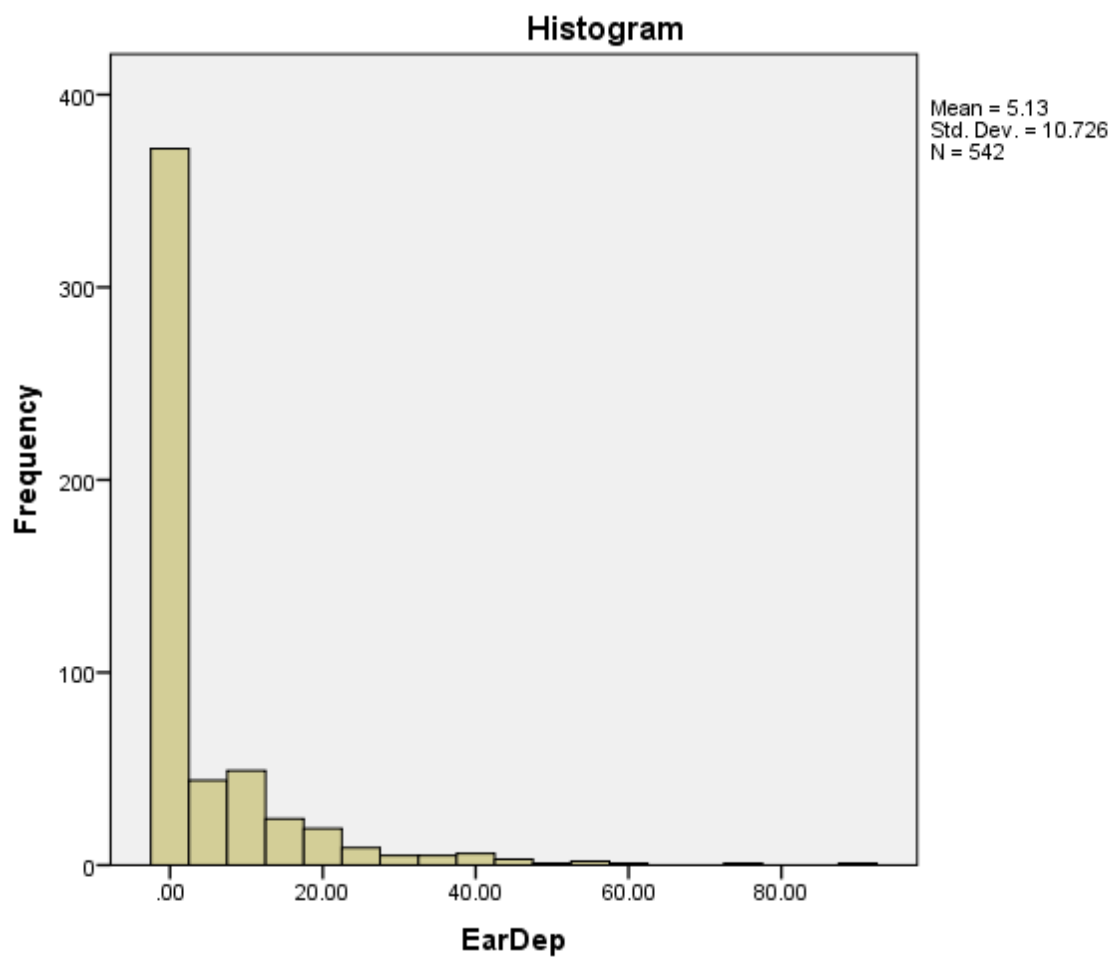
APPENDIX B



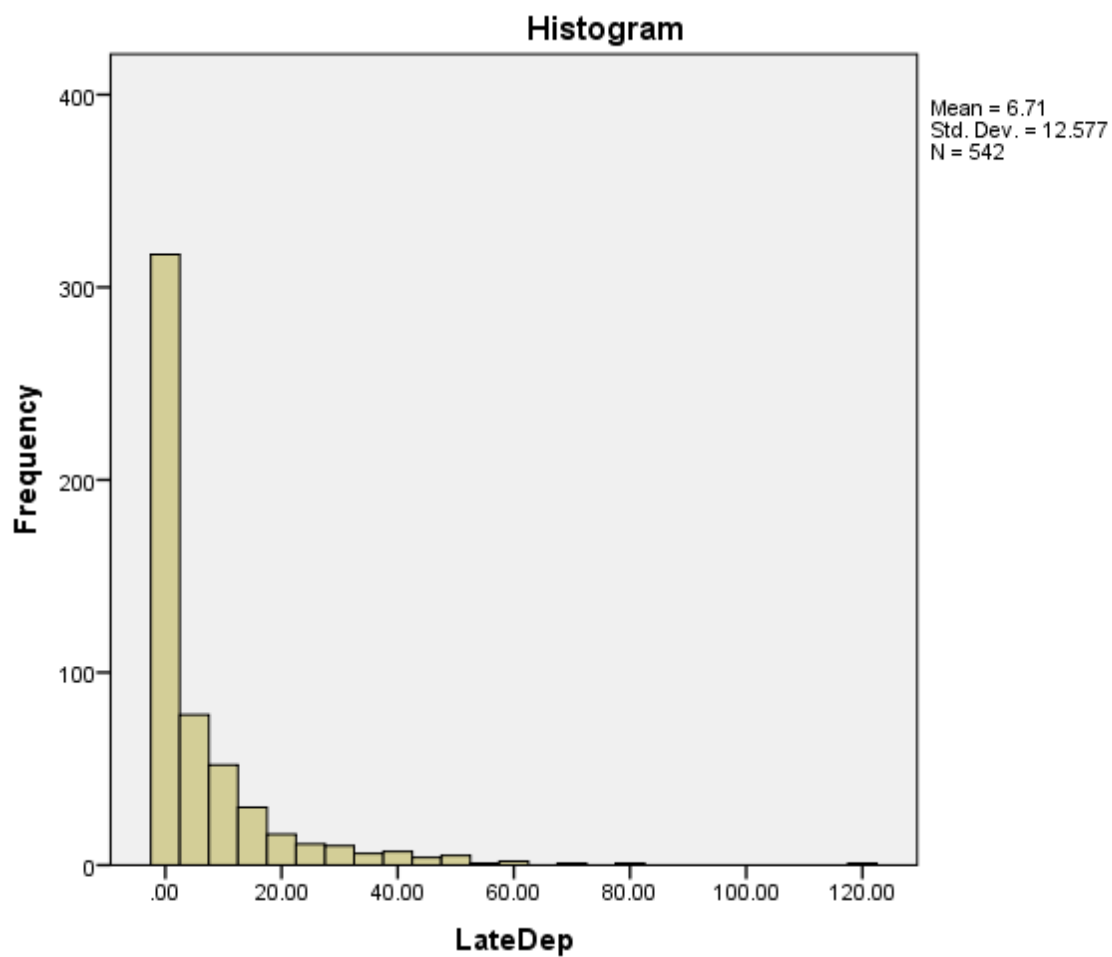
Descriptive Statistics for Arrival Time



Descriptive Statistics for Departure Time

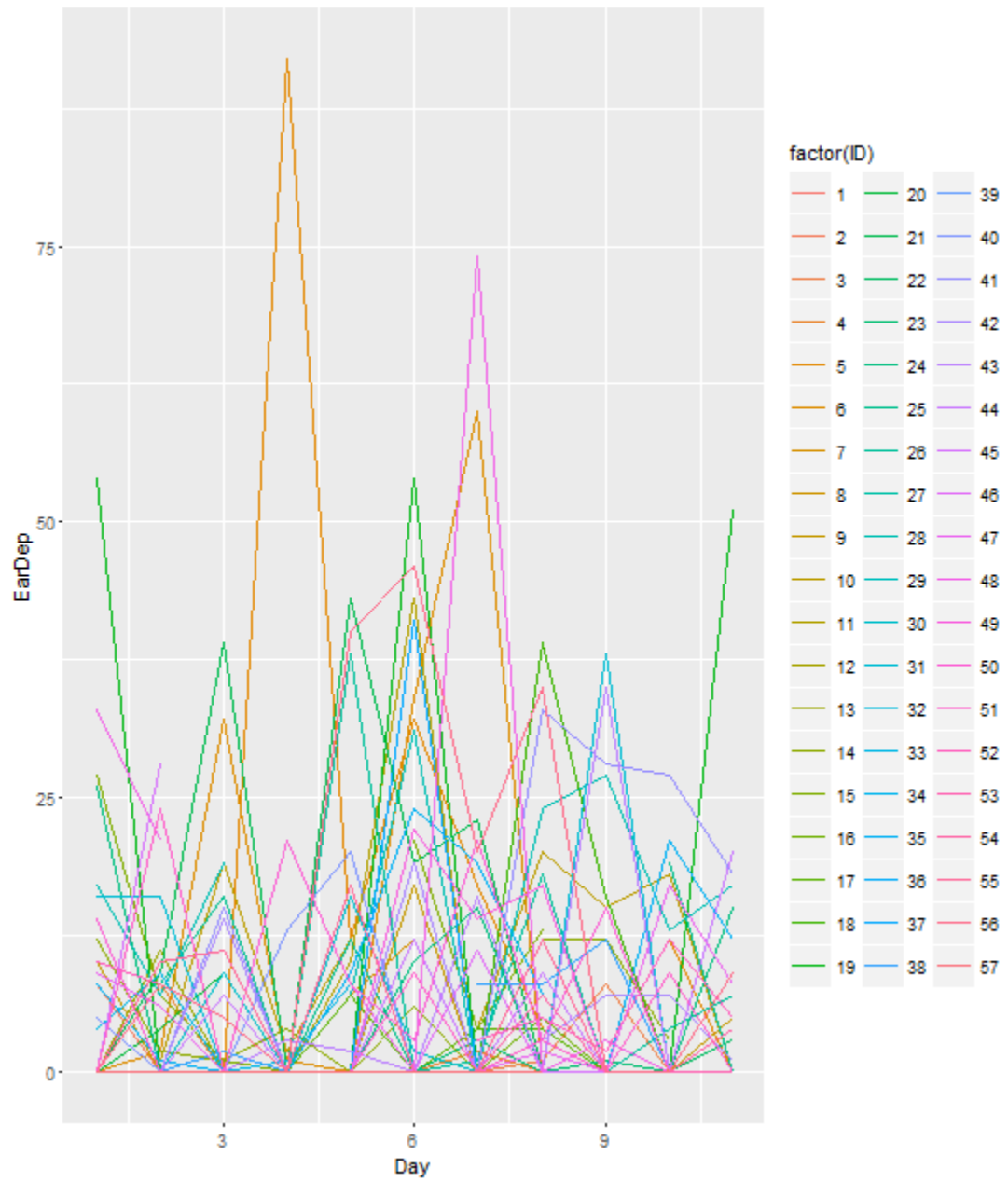


Descriptive Statistics for Early Departure Behavior

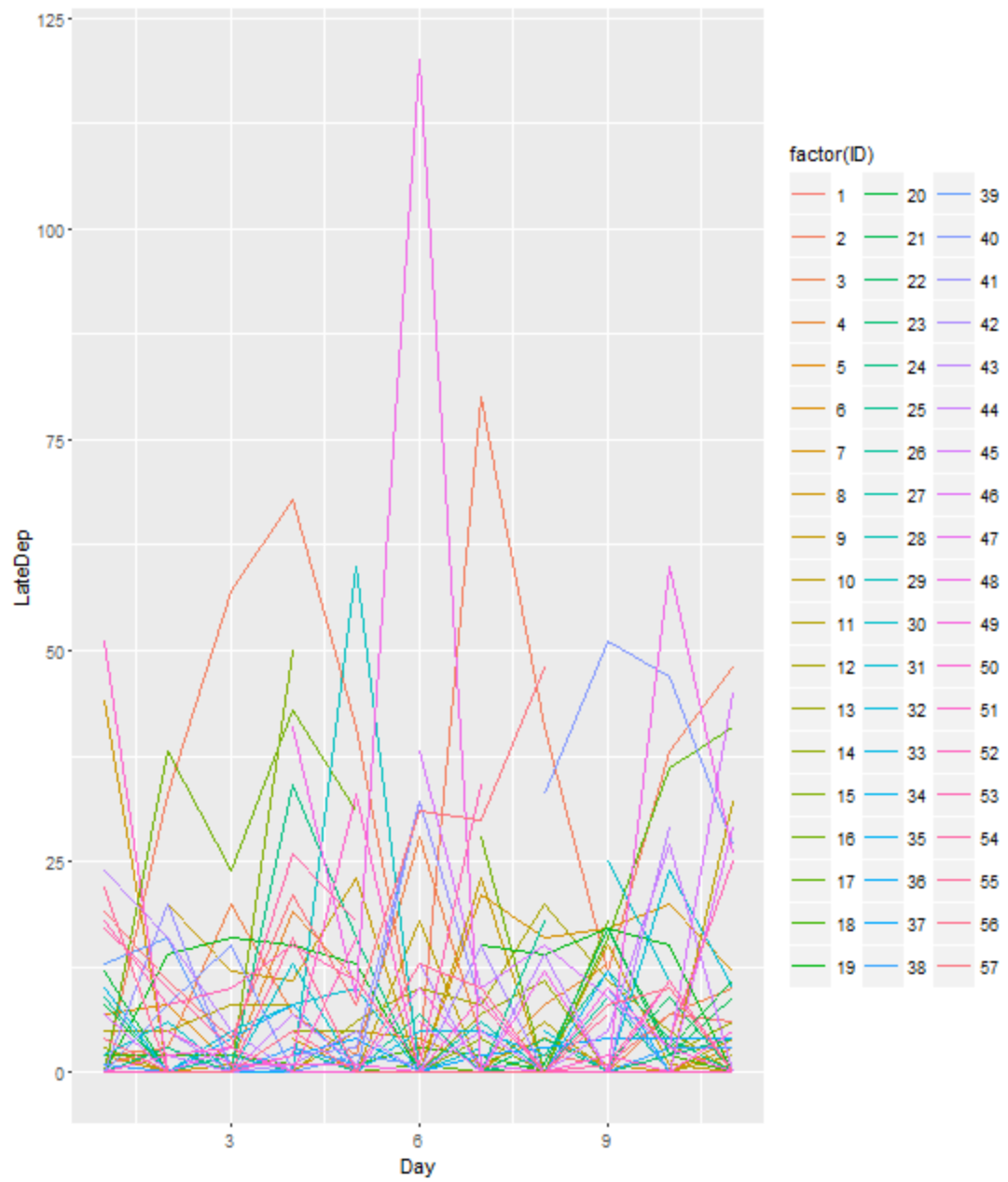


Descriptive Statistics for Late Departure Behavior

APPENDIX C



Graphs of Individual Patterns for Early Departure Time



Graphs of Individual Patterns for Late Departure Time

APPENDIX D

Measures

A) Employee Background Information

1. What is your age?

2. How many years (or months) have you been working for this organization?

3. Who is your direct supervisor?

4. With which gender do you identify (male or female)?

5. What is the number of dependents (i.e., children, elderly parents that need your care)? _____
6. Today, how much time, in minutes, did it take you to get to work?

7. What mode of transportation do you usually use to get to work?

8. Not counting yourself, what is the total number of family members that live with you?

9. How often do you do additional work from home (or some other location) during evenings and weekends?

1 = Never
2 = Rarely
3 = Every Once in a While
4 = Sometimes
5 = Almost Always

B) Experienced State Job Satisfaction

Judge, T. A., & Ilies, R. (2004). Affect and job satisfaction: a study of their relationship at work and at home. *Journal of Applied Psychology*, 89(4), 661.

Please indicate to what extent you agree with the following statements.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Disagree nor Agree
- 4 = Agree
- 5 = Strongly Agree

- Today, I am satisfied with my job.
- Today, each minute of work seems like it will never end (Reverse coded item).
- Today, I find real enjoyment in my work.
- Today, I am enthusiastic about my job.

C) Specific Attitude towards Departure Time Behaviors.

Fishbein, M., & Ajzen, I. (2013). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.

Today, departing early/late from work would be:

A bad thing: 1 : 2 : 3 : 4 : 5 : A good thing
Not Satisfactory: 1 : 2 : 3 : 4 : 5 : Satisfactory

D) Trait Conscientiousness

Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. C. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality*, 40, 84-96.

Taken from IPIP; <http://ipip.ori.org/>

Please indicate to what extent you agree with the following statements.

1 = Strongly Disagree

2 = Disagree

3 = Neither Disagree nor Agree

4 = Agree

5 = Strongly Agree

- I am always prepared.
- I leave my belongings around.
- I pay attention to details.
- I make a mess of things.
- I get chores done right away.
- I often forget to put things back in their proper place.
- I like order.
- I shirk my duties.
- I follow a schedule.
- I am exacting in my work.

E) Departure Time Intentions

Fishbein, M., & Ajzen, I. (2013). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.

Please indicate to what extent you agree with the following statements.

1 = Strongly Disagree

2 = Disagree

3 = Neither Disagree nor Agree

4 = Agree

5 = Strongly Agree

- Today, I plan to leave early/late from work.
- Today, I want to leave early/late from work.

- Today, it is likely that I will leave early/late from work.

F) Subjective Norms for Departure Time Behaviors

Fishbein, M., & Ajzen, I. (2013). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.

Please indicate to what extent you agree with the following statements.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Disagree nor Agree
- 4 = Agree
- 5 = Strongly Agree

- When it comes to my work, today I want to do what my supervisor thinks I should do. (Motivation to comply)
- Today, how likely is it that your supervisor thinks you should depart early/late from work? (Normative belief)
- When it comes to my work, today I want to do what my coworkers think I should do. (Motivation to comply)
- Today, how likely is it that your coworkers think you should depart early/late from work? (Normative belief)

G) Perceived Behavioral Control

Fishbein, M., & Ajzen, I. (2013). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.

Please indicate to what extent you agree with the following statements.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Disagree nor Agree
- 4 = Agree
- 5 = Strongly Agree

- The decision of whether or not I depart from work today early/late is entirely up to me.
- Today, I have the freedom to pick and choose whether I leave early/late from work.
- Even if I want to leave early/late from work today, I just can't. (Reverse coded item)

H) Ability to Attend Factors

Bardsley, J. J., & Rhodes, S. R. (1996). Using the Steers-Rhodes (1984) framework to identify correlates of employee lateness. *Journal of Business and Psychology*, 10(3), 351-365.

Please indicate how unlikely or likely is each of the following a factor in your departure time today?

1 = Not at All

2 = Not Really

3 = Neutral

4 = Somewhat

5 = Very Much

- Child care
- Care of others
- Auto/Commuting Issues
- Personal Illness
- Impending Weather
- Non-work related reasons

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BIOGRAPHY

Vias Chris Nicolaides was born in Fresno, CA in 1984 to Greek-Cypriot parents, Chris and Eleni Nicolaides. Despite being born in the USA, he grew up in Limassol, Cyprus. He graduated from Lanitio Likio B in 2002 and, subsequently, he served in the Cyprus Army under the rank of second lieutenant until he was honorably discharge in 2004. Vias went on to earn his Associates degree from Fresno City College in Psychology in 2006 and his Bachelor of Arts from California State University, Fresno in Psychology in 2008. He received his M.A. and Ph.D. in Industrial/Organizational Psychology from George Mason University in 2010 and 2016, respectively. Vias has published and presented his work in international and national conferences and published his research in peer-reviewed scientific journals. In addition, Vias has worked as a consultant for a variety of companies (e.g., AE Strategies, Booz Allen Hamilton, Department of Navy, Weir Pumps) in a variety of countries (e.g., Cyprus, UAE, USA). Furthermore, he has over 8 years of experience teaching undergraduate classes in Business and Psychology at George Mason University. Vias is fluent in English and Greek, while proficient in Spanish.