



universität
wien

MASTERARBEIT

Titel der Masterarbeit

PACT or no PACT? A Psychological Model of Empty Labour

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Angestrebter akademischer Grad

Master of Science (MSc)

Wien, 2015

Studienkennzahl:

A 066 840

Studienrichtung:

Masterstudium Psychologie

BetreuerIn:

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Abstract

Private activities on company time (PACT) describes the phenomenon of engaging in non-work related private activities while being present at work. While much of what we know about PACT comes from qualitative research, there exists no psychological model which would explain what makes employees engage in such activities. Consequently, a theoretical model was developed using the following work-related factors as antecedents to PACT: job engagement, job satisfaction, boredom, work control, procrastination and self-regulation. After comparing the fits of two alternate configurations of this model using data gathered from 155 individuals from various companies across Austria, results indicated that PACT can partially be explained by job engagement which is in turn influenced by boredom, job satisfaction and procrastination. Furthermore, no personal factors beyond the aforementioned antecedents had any influence on conducting PACT. The data also indicated that PACT is a constant whose impact on company performance cannot be objectively estimated. Future research might test the model among different work populations and incorporate further work-related factors.

keywords: private activities on company time, boredom, job satisfaction, job engagement, procrastination, work control, self-regulation

Zusammenfassung

Private Activities on Company Time (PACT) beschreibt ein Phänomen, wobei AngestellInnen während der Arbeitszeit arbeitsirrelevante Tätigkeiten vollbringen. Obwohl vieles was wir über PACT wissen aus der qualitativen Forschung kommt, existiert kein psychologisches Modell, dass die Vollrichtung dieser Tätigkeiten erklären könnte. Dazu wurde ein Modell entwickelt, mit dem man PACT anhand folgender Variablen erklären könnte: Arbeitsengagement, Arbeitszufriedenheit, Langeweile, Arbeitskontrolle, Prokrastination und Selbstregulation. Nach einem Vergleich zweier Konfigurationen anhand von 155 Individuen aus verschiedenen Unternehmen Österreichs, konnten die Ergebnisse zeigen, dass sich PACT über Arbeitsengagement als Mediatorvariable mit Langeweile, Arbeitszufriedenheit und Prokrastination erklären lässt. Weiterhin hatten keine persönlichen Eigenschaften einen Effekt auf PACT. Die Daten konnten auch zeigen, dass PACT eine Konstante bei der Arbeit darstellt, dessen Auswirkung sich auf die Leistung des Unternehmens nicht objektiv einschätzen lässt. Zukünftige Forschung könnte das Modell auf verschiedene Populationen anwenden und anhand weiterer arbeitsrelevanter Faktoren testen.

Schlagwörter: private Tätigkeiten bei der Arbeit, Langeweile, Arbeitszufriedenheit, Arbeitsengagement, Prokrastination, Arbeitskontrolle, Selbstregulation

Introduction

Work and organizational psychology's primary aim is to scientifically encompass the entirety of work-related phenomena, focusing on their psychological underpinnings from the perspectives of both the individual and the organization itself. Throughout the last couple of years, behavioral scientists have predominantly focused their attention on major shifts in the working world such as the intensification and globalization of work and related pathologies (e.g. burnout) which are thought to be the direct result of these changes. Some would argue that the average employee is coerced into meeting demands which are ever so more intense than those in the past while being subject to more narrower and stricter deadlines which allow for more intensive monitoring of individual efficiency and productivity. Others would pinpoint the reason for this intensification of work on the expanding digitalization of the workplace, with the so called "Internet of things" rapidly becoming the norm and connecting everything into a global functional network. While inevitably a cause or a consequence for the rise of a digitalized workplace, others would emphasize that it is primarily the growing globalization which functions as a catalyst for the drastic changes which can be observed in the everyday working climate.

However, as much as work-related phenomena are the major focus of research nowadays, there is one aspect which is relatively seldom touched upon and has received greater attention in the last couple of years. While a good deal of recent studies were devoted to the intensification of work-related activities, surprisingly little attention was paid to non-work related activities taking place while the person is physically present at his or her working place (as opposed to telecommuting and engaging in work-related activities while having a day off).

Theoretical Background

Private activities take up a significant portion of the average working day (Weatherbee, 2010; Wagner et al. 2012). One study suggests that employees spend overall one hour per day on non-work related activities (Lim & Chen, 2009). A number of other studies have shown that the average employee spends somewhere between 1.5 and 3 hours of his or her worktime on private activities (which do not in any way contribute to their current work-related task at hand) such as browsing the web, online-chatting, text-messaging, conversing on the phone or face-to-face with other employees. (Blanchard and Henle, 2008; Blue et al., 2007; Bolchover, 2005; Carroll, 2007; Jost, 2005; Malachowski and Simonini, 2006; Mills et al., 2001). Other such activities include, but are not limited to: surfing general news sites, visiting online social network sites, instant messaging, online shopping, chatting and gaming, online stock trading, sending and receiving non-work related emails, etc. (Paulsen, 2013). One study went further into detail and uncovered a broad range of activities: fantasy football betting pools, small non-work related chit-chat, daydreaming, e-mail use, Internet surfing, day-planning, bill paying, phone conversations, reading, non-official breaks and visitations by friends and/or family. The most frequent of these are phone calls, sending and receiving e-mails, chatting and non-work related Internet browsing (D'Abate, 2005).

Private activities are often viewed as either positive or negative. The negative view will be discussed first, both in terms of ethical and practical consequences. Ethically, indulging in private activities at work violates the desired values prevalent in modern working society; seeing as employers do not endorse paying employees for time spent at the working place which is essentially devoid of productive labor. Pragmatically, some consider the loss of value caused by private activities to be of such extent that they see it fit to monitor and curb these through the use

of various surveillance technologies which range from both hardware (cameras, cubicle workstations etc.) to software (pre-configured operating systems, tracking programs, spyware etc.). Assessments of this type of damage yielded many different and often starkly different figures. Speaking in percentage rates, Verton (2000) estimated that productivity losses might range up to 40% percent due to cyberloafing. Malachowski and Simonini (2006) calculated exact figures at \$544 billion per year in damages to employers. These considerable losses drive many companies to opt for the reduction of private Internet usage (Center for On-Line Addiction, 1998; Greengard, 2000). Some empirical evidence suggests that particular forms of non-work related activities are more prone to scrutiny than others. Anandarajan and colleagues (2004) suggest that different Internet-related activities present different kinds of threats to organizations and their interests. Others, such as Mastrangelo (2006) believe that non-work related activities can be perceived either as counterproductive or nonproductive. Blanchard and Henle (2008) have made a similar approach with categorizing activities as serious or minor. Similarly, Lim & Chen (2009) suggest that entertainment-related private activities bring more harm to the organization than those which are not related to entertainment. The problem is determining when and where this aspect of private activities starts becoming entertainment and when not. Seeing as inherently private devices such as smartphones have already become an office necessity, the idea of surveilling these might lead to resistance on terms of privacy invasion.

On the other hand, private activities can be viewed as a positive element of work. The opinions of employees themselves suggest that private activities might not pose a problem at all. According to a survey conducted by Vault.com, 66 percent of 451 employees did not share the view that indulging in private activities such as browsing the Internet actually harms productivity

(2000). One would expect that this opinion is expected from a population whose income is not as much dependent on the said productivity. However, the same survey indicated that half of 670 employers felt the same way. Another investigation conducted by Greengard (2000) suggests that engaging in private activities might even bolster productivity similarly to organizationally-appointed breaks, as they might increase happiness and decrease stress levels. As such, there is a probability that the ethical values of the modern working culture seem rather more diversified than previously thought. Despite the aforementioned data, the actual impact of private activities on productivity still remains largely unexplored. There is also the possibility that no unifying answer can be found, as the definition of productivity remains relative to a specific type of work and organization it is part of.

Whether researchers viewed private activities at work as either positive or negative had a significant impact on the way these were defined and operationalized. From a human resources perspective, they were often described as productivity-hindering behaviors with names such as “nonwork-related activities”, “workplace deviance” and “presenteeism” (the latest term being taken from actual medicinal canon which describes the situation where a person is at work but absent in thought or action due to health reasons). The father of scientific production, C. F. Winslow went as far as considering it ““the greatest evil with which the working-people of both England and America are now afflicted” (Taylor, 1919, p. 14). As was already mentioned, past studies were not able to determine what the actual impact of private activities is in terms of productivity loss. The natural bias in viewing private activities as either detrimental or beneficial might stem from theoretical differences, as suggested by Paulsen (2013, p. 2): “Theoretical differences in how various disciplines regard private activities at work are numerous: to begin

with, some of the statistics... are produced by organizational psychologists and management theorists who are explicitly bent on controlling the amount of empty labor. Within these disciplines, 'time waste' is regarded as a consequence of 'dysfunctional attitudes' and a lack of 'organizational regulation.' While this might not be true for a lot of adherents to those theoretical perspectives, it might account for the underlying bias which tends to attribute a stigma to private activities at work.

There are two independent definitions which were formulated specifically to remedy this problem and offer more objectivity when it comes to the operationalization of private activities while at work. One such is "empty labor", as defined by the Swedish sociologist Roland Paulsen (2013) in his original explorative interviews on private activities which were conducted with over 70 employees from a pool of different companies and professions, along with a subsequent book in which he further explored the theoretical and practical ramifications of private activities at work (Paulsen, 2014). Another term (which will be used as the operative term in this study) is "private activities on company time" (as of now abbreviated as "PACT"), which was conceived by Eddy, D'Abate and Thurston (2010). PACT are defined as "situations where employees engage in non-work-related tasks while on the job during working hours, outside of the normal lunch hour or break time" (p. 640). PACT encompass a wide variety of activities which is not exhaustive. The behavior itself is "widespread and easily rationalized by employees" (D'Abate, 2005, p. 1028). The original studies examined PACT as consequences of overlapping life realms such as home, work and leisure realms. The idea behind this is that historical events, such as the emergence of capitalism, lead to a division between life realms. Home was both the place for work and leisure until the proliferation of cities and factories, resulting in a segmentation of the aforementioned life

realms (Fleming, 2005). According to the life realms theory, PACT was differentiated into home- and leisure oriented activities: “People engage in home-oriented activities at work such as taking care of business related to their family, children, spouse, partner, parents, siblings, housekeeping, errands, and home maintenance, and they engage in leisure-oriented activities defined as attending to the demands of their social life, recreation, relaxation, amusement, entertainment, personal interests, hobbies, sports, art, friendships, and other free-will interests... during work hours.” (D’Abate, 2005, p. 1026). While the idea of multiple life realms has so far been the main point of reference for studying PACT (D’Abate & Eddy, 2007; Eddy, D’Abate & Thurston, 2010), a study conducted by König and de la Guardia (2013) suggests that it is not sufficient to explain these activities completely. The main theory of life realms criticized here is Clark’s theory of work/family border theory (2000). This study has thus opted for not using the theory of life realms for its theoretical framing.

Qualitative research indicates that PACT can be rationalized in many ways: “(i) ...people construct common meanings to explain or rationalize personal business on the job; (ii) ...the desire for work–life balance plays a large role in this behavior; and (iii) ... the importance that people place upon their work, home, and leisure life realms... is also strongly related to engaging in personal activities at work.” (D’Abate, 2005, p. 1021). This proved to be less-stable in subsequent replication via questionnaires (Eddy & D’Abate, 2007): Specifically, points (ii) and (iii) were not sufficiently supported by quantitative data. In regards to point (i), several rationalizations were derived and identified from the data. Eighteen participants attributed the engaging in personal activities to “convenience”; it was convenient to make phone calls, surf the Internet, or e-mail others because the device (smartphone or computer) was right in one’s reach. Other common

rationalizations had to do with time constraints (long commutes or time spent with family limited the opportunity to engage in private activities while not at work) and timing (making appointments with services such as hair stylists, doctors and others since their working hours were typical office working hours). Some employees explained their tendency to engage in PACT as being able to multi-task and handle both work-related and non-work related tasks simultaneously. They saw indulging in personal activities as a reward for having completed a work project or having the right of privacy and autonomy which allows them to engage in personal activities at work. These other types of rationalizations were mentioned by fewer than 25 percent of the participants. This means that it is less likely that a person will rationalize conducting personal business during the workday because he or she has a right to do so. While these findings indicate what explicit reasons might drive people to engage in PACT, they do not tell us which psychological mechanisms contribute most to the likelihood of engaging in private business at work. One of the reasons this might be the case is that studies on PACT have thus far focused on predominantly qualitative data.

Quantitative research might fill this gap by identifying which constructs contribute to the likelihood of engaging in personal business at work. This is possible by formulating and a theoretical model based on how well it represents the empirical data. Theoretical models from past inquiries haven't focused on PACT as a collective term for various activities, but rather on each activity individually. One such activity is personal Internet usage (PIU), which has thus far been the subject of many different models. Even then, we can consider this specific form of PACT an umbrella term, as there are many different activities which can be performed while using the Internet: browsing, chatting and online-shopping. Depending on whether PIU was viewed as negative or positive, different precedents and outcomes were suggested. Blanchard and Henle

(2008) considered PIU negative and investigated antecedents such as perceived injustice, role ambiguity and role conflicts, while predicting negative outcomes like loss of productivity and increased security risks. On the other hand, Anandarajan and Simmer (2005) predicted positive outcomes such as increased productivity and happiness, while Li and colleagues (2010) and König and Guardia (2014) identified perceived benefit and meeting private demands as antecedents of PIU. Either perspective was not able to fully explain the extent and likelihood of engaging in said private activity. In contrast, this study will attempt to consider both negative and positive antecedents and focus solely on constructs which lead to individuals engaging in more or less PACT. This way, the model will offer a framework through which PACT might be predicted and understood. In line with past studies, several constructs were chosen as predictors of PACT: boredom, procrastination, perceived work control, job satisfaction, job engagement and self-regulation. Each of these will be described in the upcoming sections.

Additional findings point out that PACT doesn't seem to be dependent on a variety of personal attributes such as age, gender, marital status, parental status, occupational field, type of work, tenure, hierarchical level, work hours, work setup or organizational size (Leftheriotis & Giannakos, 2013). This would mean that PACT occurs regardless of position within an organizational framework. A different study was however able to identify the influence of age, sex and even race when it comes to using the Internet (Vitak, Crouse & LaRose, 2011). The intensity of PACT might however vary considerably when observing single organizations, a question which might be investigated in a future study.

Questions and Hypotheses

The aim of this study is to create a psychological model which would be able to predict the extent in which employees engage in PACT. For this, six antecedents were identified from the literature and then used to propose two hypothetical models through which PACT can be explained. In the first model (further abbreviated as Model A), job engagement functions as a mediator between boredom, procrastination and job satisfaction and PACT. In the second model (further abbreviated as Model B), the antecedents remain the same, but work control is added as an antecedent to PACT and self-regulation is added as a moderator between job engagement and PACT (seeing as there are no indicators of whether these variables exhibit any influence on PACT despite having valid theoretical underpinnings for doing so).

These hypotheses can be appropriately depicted through two models (see Fig. 1 and Fig. 2)

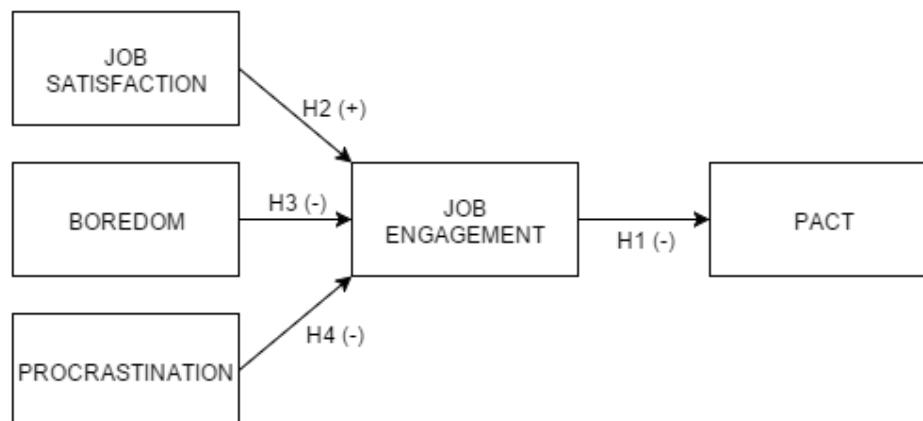


Figure 1. Basic model of PACT

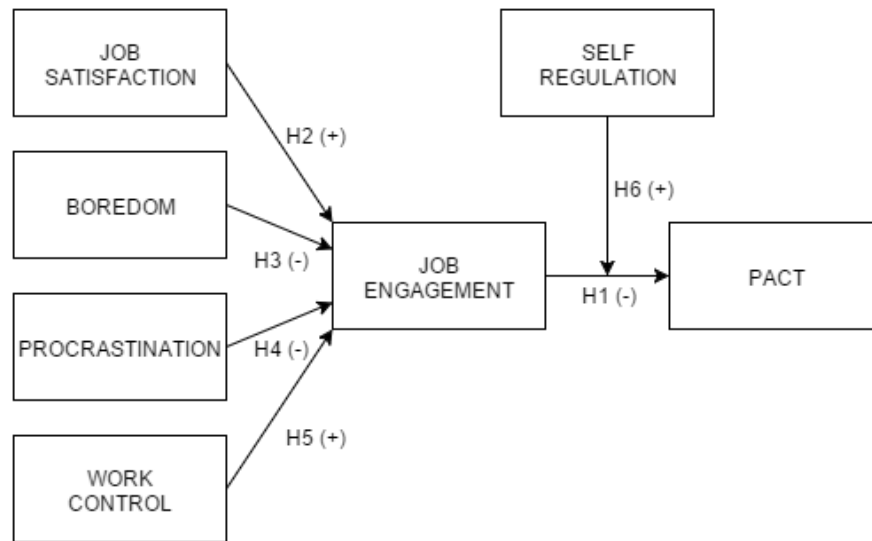


Figure 2. Moderator model of PACT

Job Engagement

Perhaps the most commonly accepted definition of job engagement refers to it as "...a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli & Bakker, 2010; Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74). Essentially, a person is insofar engaged in his work when he or she experiences positive stimulation to the point where this person is willing to invest lengthy time and effort in the said work. The work becomes subjectively loaded with meaningfulness and encompasses the whole of one's concentration (absorption). Job engagement was proven to positively influence the individual's overall well-being and self-efficacy, promoting positive self-feedback, recognition and appreciation. In case such persons do get fatigued, they tend to describe this same fatigue as rather pleasant and justified, because it resulted in a sort of accomplishment (again related to the dedication component). In the theoretical framework of Arnold B. Bakker, job engagement is the

mediator between positive job resources and potential psycho-behavioral outcomes. Thus, many different factors (both positive and negative) can influence the extent in which one person is engaged in his or her work. The difference between being engaged in one's work and workaholism is that being engaged means doing one's work for the sake of one's inner pleasure, rather than a compulsion to work purely for the sake of the activity itself. (Gorgievski, Bakker & Schaufeli, 2010). Following this definition, it is assumable that job engagement runs counter PACT, as persons more absorbed and dedicated to a certain activity will less likely abandon it and do something else, even if it means refusing a short break. As different aspects of work and personal dispositions influence the degree of job engagement, it might serve as a mediator between these and the final outcome, which is the likelihood that PACT will be engaged in. We can thus formulate the following hypothesis:

H1: The more engaged a person is in his or her work, the less likely he or she will engage in PACT.

Job Satisfaction

Job satisfaction is typically defined as an attitude that encompasses the emotional reaction to and opinion of work and readiness to behave in a certain kind of way at work (Six & Felfe, 2004). This attitude comes as a result of fulfilling relevant needs and wishes at work – thus, job satisfaction is a result of motivation (Neuberger, 1974). As an attitude, job satisfaction can be directed at many different aspects of working activity: the task itself, external working conditions, relationships to managers and colleagues, promotion chances, payment and etc. This way, job satisfaction can be different depending on what aspect of work is currently being addressed (a

person might be satisfied with the way he communicates with the management, but altogether unsatisfied with the way he communicates with his colleagues) (Nerdinger, 2006). Seeing as increased job satisfaction also increases the readiness to behave more proactive at work, it can directly influence job engagement which in turn influences the tendency to engage in PACT. Thus, the following hypothesis can be posted:

H2: Job satisfaction is positively associated with job engagement.

Boredom

One of the more prevalent factors which might be an indicator for PACT is boredom. Boredom has been associated with conducting private activities while at work and thus might be an unavoidable factor when predicting PACT at work. In her qualitative work, D'Abate (2005) found that more than a half of the interviewees indulged themselves in non-work related activities in order to reduce boredom. Individuals cannot direct their undivided attention on a single activity the entirety of their work-time and require a multitude of different activities in order to function optimally at the workplace. Some of these different activities might not even be work-related and can still offer a viable alternative to uphold productivity and concentration over an extended period of time. A study conducted by Roy (1959) calls this "Banana Time", a period dedicated solely to social activities such as "coffee time, peach time, banana time, fish time and coke time" (p. 162) for the purpose of increasing dedication, productivity, morale and satisfaction, while at the same time decreasing monotony of the everyday work strain. A common definition of boredom describes it as a "transient affective state or emotion", resulting in a "lack of interest in and difficulty

concentrating on the current activity” (Game, 2007, p. 702). In terms of its duration, it is significantly shorter than other states such as job satisfaction (Fisher, 1993, p. 396). There are numerous causes for boredom which can be inherent to the type of activity or the workplace itself: repetitive tasks, low stimulation activities, lack of objectives, restricted breaks or talking times etc. The consequences range from minor to severe: attention lapses, fatigue, deficits in personal well-being, absenteeism and even sabotage (Fisher, 1993; Game, 2007). In respect to PACT, boredom might prove as one of the central catalysts through which it manifests. While dissatisfaction with the current activity most likely leads to individuals pursuing another one, this other one might not be work-related at all. Thus:

H3: Boredom is negatively associated with job engagement.

Procrastination

Researchers define procrastination as the voluntary delay of an action despite foreseeable future negative consequences. Individuals opt for a short-term pleasure and/or mood instead of a long-term one. Klingsieck (2013) compiled different definitions of procrastination and filtered seven main components specific to this activity: displacement of a certain activity or sets of activities, the intention to begin or finish that certain activity or sets of activities, placing importance on said activities or sets of activities, an intrinsic voluntary choice for engaging in procrastination, the irrationality of procrastination, awareness of potential or definitive negative consequences of procrastination and a feeling of uneasiness which follows the conducting of procrastination. Its prevalence lies somewhere between 20 and 25 percent amongst the general population (Ferrari, Díaz-Morales, O’Callaghan, Díaz & Argumedo, 2007), while as much as 70

percent of students reported this behavior (Schouwenburg, 2004). Potential consequences of procrastination include (but are not limited to): impaired wellbeing and health, decreased academic performance (Tice & Baumeister, 1997) and impaired productivity at work (Lonergan & Maher, 2000). The tendency to procrastinate has increased over the last couple of years (Kachgal, Hansen & Nutter, 2001) as technologically advanced societies demand more responsibilities and deadlines from individuals. Contrary, agrarian societies do not seem as affected by procrastination. Further findings suggest that white-collar workers tend to procrastinate more than their blue-collar worker counterparts. Thus, there are significant situational factors which contribute to procrastination besides psychological ones. Following these findings, it would be intuitive to assume that procrastination and PACT have a necessary relation between each other (if not outright being the same phenomenon). While it can be assumed that PACT and procrastination are one and the same phenomenon, a distinction has to be made between the two. Some of the seven core characteristics of procrastination proposed by Klingsieck are not compatible with PACT: PACT may or may not be accompanied by a certain work-related activity (a person might have accomplished all of his/her tasks and thus has a lack of work-related activities), the intended main activity does not have to be subjectively important to the person, external influences might be the catalysts for engaging in PACT (a lack of work-related objectives) and PACT is most of the time perceived as a rational activity (often to reduce the sensation of boredom). Thus, while engaging in procrastination might entail PACT, this does not mean that they are the same phenomenon. Past research has indicated that procrastination is positively correlated with PACT (O'Neill, Hambley & Chatellier, 2014; O'Neill, Hambley & Bercovich, 2014; Wan, Dowey and Stough, 2014) but this study will explore whether an indirect effect via job engagement can be observed as well. Thus:

H4: Procrastination is negatively associated with job engagement.

Work Control

Work control is an important correlate of job-related stress and organizational and personal outcomes. According to Ganster (1989), work control is defined as “the ability to exert some influence over one's environment so that the environment becomes more rewarding or less threatening” (p. 3). Work control can either be assessed externally or internally. For the purposes of this study, the emphasis lies on subjective evaluation, as it is better associable with personal outcomes such as PACT and also offers better operationalization. Seeing as the ability to make the working environments more rewarding is tightly dependent on keeping focus on one activity at the time, it is reasonably assumable that a greater ability to control one's working environment also diminishes the amount of time individuals spend doing PACT. However, past studies have not taken control as an antecedent of PACT and this study will take the precocious step and suggest work control as an antecedent in the Model B. Accordingly:

H5: Work control is positively associated with job engagement.

Self-regulation

Self-regulation is defined by Schwarzer (1999) as the focusing of attention in a maintenance situation, that is, in a situation when individuals are pursuing a certain goal and facing the difficulty of maintaining their action, regardless of the source of these difficulties. In addition,

an individual must keep a favorable emotional balance. Defined this way, self-regulation has two components: attention-regulation and emotion-regulation. Past studies have marked self-regulation as one of the primary factors when it comes to success or failure, regardless of the nature or relevance of the problem at hand. (Baumeister & Vohs, 2007; Worden et al., 1989). Moreover, self-regulation is deeply rooted in various issues which tend to dominate public matter and a lack of it might lead to numerous possible negative outcomes: abuse of drugs and alcohol, addiction, unwanted pregnancy, STDs, gambling, violence, violation of the law, anorexia, bulimia, anger management issues, problems in school, crippling debt and more. Sayette (2004) classifies self-regulation based on failure to maintain it into two categories: underregulation and misregulation. Underregulation refers to failure to maintaining self-regulation, while misregulation means maintaining self-regulation in such a manner that it doesn't lead to the desired goal. According to Schwarzer (1999), associations were found with general self-efficacy beliefs and with proactive coping. Further research also indicated correlations with procrastination and self-stress reports. These theoretical underpinnings would indicate that self-regulation has a negative impact on PACT as it might be a last step between harboring a general attitude toward one's work and actually engaging in private activities. Jiang and Tsohou (2014) proposed a similar solution by defining self-regulation as a moderator variable. However, as self-regulation has so far not been studied as a moderator for PACT, this study will propose it as an antecedent in the comparison "moderator" model. Thus:

H6: Self-regulation has a positive moderating effect on the relationship between job engagement and PACT, the higher the self-regulation, the more negative the relationship between job engagement and PACT will be.

Methods

Study Design

This research utilized a quantitative and part-confirmatory/part-exploratory approach in order to study the relationship between potential relevant constructs and PACT. This method was chosen as it offers a quick and economic way of determining recurring response patterns between specific latent variables and observable behaviors in the form of time spent conducting PACT. As past research has already shed light on some the most important characteristics of PACT, qualitative methods would be of no further value to the matter at hand, which is proposing and testing two conceptual models of PACT. These two models were then compared on the basis of their model fit, which were elucidated using structural equation modelling (SEM). The model fit criteria were taken from Hu and Bentler's (1999) recommendations of meeting two of the three criteria of Standardized root mean square residual (SRMR) ≤ 0.08 , Root mean square error of approximation (RMSEA) ≤ 0.06 and Comparative Fit Index (CFI) ≥ 0.95 . The model with the better fit values will be the model of choice.

When it came to the participants, the aim of this study was to approach a broader working population with both fixed and flexible working hours, as opposed to past studies which excluded upper management and telecommuters (D'Abate, 2005; D'Abate & Eddy, 2007; Eddy, D'Abate & Thurston Jr., 2011). The reasoning behind this was because middle hierarchical positions may have the most balanced amount of autonomy throughout the structure of an organization. High-level jobs might on the other hand have too much free time and thus be unable to distinguish it from the working time. Employees on the other side of the hierarchical spectrum might have far too little personal autonomy in order to engage in private activities at work, as they might not have

the technical capabilities to do so. Despite the potential influence these aspects might have on PACT, it is still arguable whether middle management is generally more “PACT-able” than other positions. By removing this criterion, we might be able to control it by comparing the amount of time spent engaging in these activities with those of past surveys. Another fixed criterion was a stable working schedule (as opposed to flexible working schedule as is the case for telecommuters), which was kept in this study design. Individuals with flexible working hours have more autonomy when it comes to their actual working time with the crucial characteristic of this type of working schedule being that they might engage in work at random and in different intervals. This provides actual problems as it leads to an interference between working and leisure activities. Furthermore, certain activities such as surfing the Internet or online-shopping become even more indistinguishable than they already are. The final criterion (which was also kept in this study) are white-collar workers, as they have overall a bigger chance of actually engaging in private activities due to technical opportunities of doing so. Blue-collar workers are much more limited in this aspect and might more supervised than white-collar workers.

Power Analysis. In order to have a vague picture of how many participants would be necessary to validate either Model A or B, a power analysis was conducted using the statistical software G*Power. According to Wikipedia: “The power or sensitivity of a binary hypothesis test is the probability that the test correctly rejects the null hypothesis (H_0) when the alternative hypothesis (H_1) is true.” Since we wish to validate and compare two models with different sets of variables, a separate power analysis has to be conducted for each of them. For model A, the estimated sample size for a large effect of $w = 0.5$ and $df = 3$ (15 being the number of distinct sample moments and 12 the number of distinct parameters which have to be determined) was determined to be 69 (actual

estimated power was 0.95 under an α error of 0.05). For model B, the estimated sample size for a large effect of $w = 0.5$ and $df = 9$ (28 being the number of distinct sample moments and 19 the number of distinct parameters which have to be determined) was determined to be 95 (actual estimated power was 0.95 under an α error of 0.05).

Procedure

The intention of this study was to validate the proposed research models by gathering data through a one-time survey amongst different companies in Austria. The survey consisted of construct measurements which were adapted from earlier studies and proved to have the required psychometric values. The survey was constructed using the website SosciSurvey and was open for participation from the 1st of April until the 1st of June, 2015. The participants from the various companies were contacted individually via various online platforms and forums. After agreeing, they were sent a mail containing the link to the questionnaire. Following this purposive sampling, additional participants were identified by the use of snowball sampling (Welch, 1975) (i.e. asking participants to name others who might participate in the study and sending them the same link via mail). A formal consent was required before participating in the study and instructions were given in the form of a written paragraph on the first page in order to assure that no third party would be able to trace or identify the participant. As the data was collected using SosciSurvey, automatic questionnaire responses were recorded via remote servers and converted into SPSS file formats for further analysis. This resulted in 462 surveys with more than a half of them being false positives due to participants cancelling after the first page, which is a common occurrence in quantitative online studies. The links for the questionnaires were posted in various forums across the Internet and several multinational companies. Once the data was gathered, SPSS was used to analyze it.

Additionally, SPSS was used to correct the data through the following steps: all nonsensical or deviating data was categorically removed along with the participants whom it belonged to, negative response were recoded to be on par with the positive ones, missing values were replaced by the participant's median of that specific scale and particular construct values were calculated by summing up the singular values from every item. After the data was prepared, the SPSS module AMOS was used to (i) conduct a CFA of the antecedents in order to check for validity and (ii) SEM to subsequently analyze the two proposed models separately.

All constructs besides PACT were calculated as a sum of their individual items and considered latent variables, whereas the latter was a sum of the individual minutes the persons invested in particular activities. Additionally, each dependent variable's residual error was calculated and subsequently standardized.

Participants

The sampling procedures in this study resulted in a diverse pool of participants from various professions and organizations. The end-result were 161 participants with completed surveys. Further six were excluded due to incomplete or nonsensical data, resulting in 155 participants. The resulting sample of 155 individuals was 56 percent female, and 70 percent employees were without a managerial function and ranged from companies of various sizes (25 percent came from companies which ranged from 11 to 50, while 20 percent came from companies which were significantly larger, with the amount of employees ranging up from 1000). They represented a wide variety of occupations: consulting, education, administration, logistics, health

professionals, designers, human resources, informatics, attorneys, communications, quality management, controlling, security, social workers, technic, salespersons and scientists.

Instruments

Private activities on company time (PACT). The original instrument for measuring PACT listed various activities which were identified via interviews with employees. The participants were asked to indicate the number of times they engaged in a certain activity per week and the respective duration of said activity. They were also asked to differentiate between doing these activities for themselves or their families. Since this study is not based on the life realms theory, the participants were not asked to differentiate PACT based on the criteria of doing it for themselves or their families. Furthermore, frequency per week was removed in favor of an average “per day” measure of time spent on a certain activity (in minutes). Nine of the most common activities were posed as non-work related activities: telephone calls, chatting with colleagues about private matters, reading/composing e-mails, browsing the Internet, planning private activities, online-shopping, reading, conducting banking business and getting visits from family and/or relatives.

Job engagement. Arnold B. Bakker’s Job Engagement scale from Utrecht is a classic instrument used to measure job engagement. With a test-retest reliability of .64 and Cronbach’s alpha of .90, the scale was tested multiple times to provide an accurate estimate of a person’s subjective involvement in his or her work (Schaufeli & Bakker, 2003). The instrument consists of 9 items on a 7-point Likert scale. Sample items include questions like “My work inspires me.” and “I am proud of my work”.

Job satisfaction. Global satisfaction was measured using the Generic Job Satisfaction Scale by MacDonald and MacIntyre (1997). This scale consists of 10 items and uses a 5-point Likert answer format with a Cronbach's alpha of .77. A CFA was conducted and all items loaded acceptably on a single factor (see Attachment). Sample items include questions like "I am happy to be able to work in my organization." and "I believe that the management takes good care of me."

Boredom. A popular instrument to measure boredom (specifically, boredom proneness) is the Boredom Proneness Scale by Farmer and Sundberg (1986). While the original scale consists of 28 items and has an internal consistency ranging from .72 to .79 and coefficient alphas ranging from .79 to .84, this study opted for the shortened version by Vodanovich, Wallace and Kass (2005), since they were able to eliminate items which would otherwise obstruct a single factor validity. The refined instrument consists of 12 items on a 7-point Likert scale. Just in case, another CFA was conducted and a single item was identified as not loading properly on a single factor. Sample items include questions like "I always plan everything and am always busy." and "Many things I have to do are monotonous."

Self-regulation. Schwarzer's Self-regulation Scale was used to assess self-regulation. In a sample of N = 442 Germans, the scale has showed an internal consistency of Cronbach's alpha = .76. Another sample of N = 239 Germans yielded a retest stability of .62 after six weeks (Schwarzer, 1999). The instrument consists of 10 items on a 5-point Likert scale. Sample items include questions like "I can hardly concentrate when I am worried." and "I can focus on an activity for very long if I need to."

Job control. Often, the measurement of work control is conducted with Karasek's Job Control Scale which is based on the job-demands control model of organization stress. This study will nevertheless opt for the use of Ganster's work control scale as it offers better psychometric properties in terms of validity assessment. While the original instrument consists of 22 items, 17 of them are used as measures of general work control with a 5-point Likert scale. The instrument has a reliability of 0.87 (Ganster, 1989). Sample items include questions like "How much control do you have over the result of your work?" and "How much control do you have over when you can visit or leave your work?".

Procrastination. Procrastination was measured using Schwarzer's procrastination scale, which was tested multiple times and has good psychometric qualities with a reliability of .72 (Schwarzer, Schmitz & Diehl, 2000). The conducted CFA was able to confirm a single-factor validity. The instrument consists of 10 items with 5-point Likert scale. Sample items include questions like "I often have a bad conscience when I put off important things to do." and "I start every day with a clear vision of what I want to accomplish." The individual score for procrastination was calculated by summing up the value from the individual items.

Demographics. Demographical data consisted of: sex (male or female), age (categorical age groups were used), education (adapted to the Austrian education system), nationality (Austrian, German and other), duration of employment (in months), occupation, hierarchical job function and the size of one's organization (in number of people).

Statistical Analysis

To help predict the loadings between the proposed antecedents and PACT, the correlations between them will be calculated using Spearman's correlation. The necessary criteria for this type of correlation estimate has been met, as the data is not normally distributed. Each of the proposed

hypotheses will then be analyzed in respect to their correlation value and tendency (to the extent of whether they are positive or negative).

After analyzing the correlational patterns, structural equation modelling (SEM) will be conducted to compare the mediator and non-mediator model of PACT. According to Wikipedia, SEM “is a family of statistical methods designed to test a conceptual or theoretical model. Some common SEM methods include confirmatory factor analysis, path analysis, and latent growth modeling.” It “is widely used in the social sciences because of its ability to isolate observational error from measurement of latent variables.”

All data will be analyzed using the Statistical Package for the Social Sciences (SPSS). This software is widely used for statistical purposes in various sciences and market and health researchers, survey companies, government, education researchers, marketing organizations, data miners and others. It is also a viable software for data management and documentation. This study used version 22.0.0.0. For SEM, the SPSS module Amos was used. It enables one to specify, estimate, assess and present models to show hypothesized relationships among variables. It allows for building more accurate models than with standard multivariate statistics techniques. It also uses Bayesian analysis to improve estimates of model parameters.

Results

Descriptive Analysis

Sample Population. The sampling procedure in this study resulted in a diverse pool of participants from various professions and organizations, which was as much as 161 participants with completed surveys. Further six were excluded due to incomplete or nonsensical data, resulting

in 155 participants. The resulting sample of 155 individuals was 56 percent female and encompassed employees from various age groups, of which 22 percent were 20 to 24, 25 percent were 25 to 39, 17 percent were 40 to 44, 8 percent were 45-49 and 8 percent were 50-59 years old. Seeing as the target population were white-collar workers, 54 percent of participants had a university degree, while 27 percent had a maturation. As much as 70 percent employees held a hierarchical position without a managerial function and ranged from companies of various sizes: 25 percent came from companies which ranged from 11 to 50 employees, while 20 percent came from companies which were much larger, with the amount of employees ranging up from 1000. They represented a wide variety of occupations education (11 percent), administration (14 percent), health professionals (11 percent) and informatics (15 percent). Other minor occupations included (under 10 percent each): consulting, attorneys, communications, quality management, controlling, security, social workers, technician, salespersons, scientists and others. Thus, it can be concluded that the findings of this study are applicable to a more qualified personnel, while keeping in mind that particular occupations might exhibit significantly different effects than others.

PACT Occurrence. Complementary to past studies, employees tend to spend a little more than one hour on private activities while at work. This seems to be more prevalent in employees more lowly in a company's hierarchical structure (with an average of 75 minutes). In regards the size of the company, those with fewer employees tend to spend about 87 minutes, while those with more an average of 82 minutes. However, bigger companies exhibited a greater variance than smaller ones (standard deviation being 130 minutes in comparison to 77 minutes). There were no differences when it came to gender, education or field of work. The individual pact activities, their rate of occurrence and overall PACT are presented below (See Table 1)

	Minimum	Maximum	Average	Standard Deviation
1. Phone calls	0	50	4,82	7,714
2. Chatting with colleagues	0	120	21,93	19,202
3. Reading and/or answering private E-mails	0	60	7,00	9,252
4. Browsing the Web	0	420	24,43	54,367
5. Planning private activities	0	60	5,89	10,043
6. Banking	0	30	1,81	4,133
7. Online-Shopping	0	60	2,01	6,266
8. Reading	0	180	8,39	24,815
9. Visit from relatives or friends	0	120	2,07	12,217
10. Overall PACT	0	722,00	78,3355	95,93479

Table 1. Average, standard deviations, minimums and averages of overall PACT and specific activities

Testing for requirements

The following section addresses two requirements which must be met in order to apply parametric testing: normal distribution and factorial validity.

In order to test for normal distribution, two separate tests can be used: P-Plots and the Kolmogorov-Smirnov-test. When using P-Plots, a line representing the normal distribution is compared with actual data in the form of points. If the points are very far from the line, the data does not resemble a normal distribution. All scales proved to meet the requirements for normal distribution, with some deviating slightly from the line of reference

When it comes to the Kolmogorov-Smirnov-test, a non-significant result indicates that a normal distribution is present. The following figure summarizes values of the particular scales.

Correlations

The correlation analysis was able to highlight several significant relations between the proposed constructs. The highest positive correlation was found between job engagement and job satisfaction, $r(154) = .745$, $p < .01$, while the lowest was between procrastination and PACT, $r(154) = .204$, $p < .01$. The highest negative correlation was Only two correlations proved to be insignificant: the relationship between work control and procrastination, $r(154) = -.124$, $p > 0.05$ and work control and PACT, $r(154) = -.106$, $p > 0.05$.

The correlations, as well as standard deviations and mean values can be summarized in the table below (see Table 2)

	<i>Correlations</i>						
	Boredom	Self-regulation	Job Satisfaction	Job Engagement	Work Control	Procrastination	PACT
Boredom							
Self-regulation	-,545**						
Job Satisfaction	-,633**	,331**					
Job Engagement	-,693**	,477**	,745**				
Work Control	-,420**	,211**	,653**	,519**			
Procrastination	,474**	-,515**	-,274**	-,389**	-,124		
PACT	,271**	-,229**	-,244**	-,302**	-,106	,204**	
SD	9,65	6,09	7,81	12,84	11,72	7,66	95,93
Mean	39,51	36,4	35,80	38,91	56,15	28,39	78,33

*significant codes: 0.01**,

Table 2. Correlations, standard deviations and means

Hypothesis testing

The first model without the moderated effect and work control achieved fit according to the guidelines proposed by Hu and Bentler (1999), $\chi^2(3) = 3.222$, $p = 3.359$; CFI = 0.999; RMSEA = 0.022, while the second model exhibited the following values: $\chi^2(9) = 44.872$, $p = .000$; CFI = 0.918; RMSEA = 0.161, thus not fulfilling two of the necessary criteria.

Figure 4 presents a path diagram of the moderated effect on PACT via self-regulation, while Figure 3 presents a path diagram where self-regulation and work control are absent.

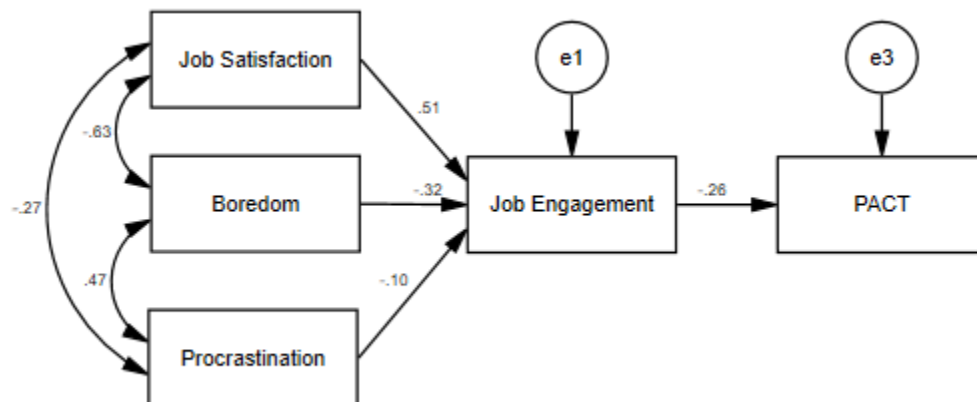


Figure 3. SEM for base model of PACT (standardized loadings)

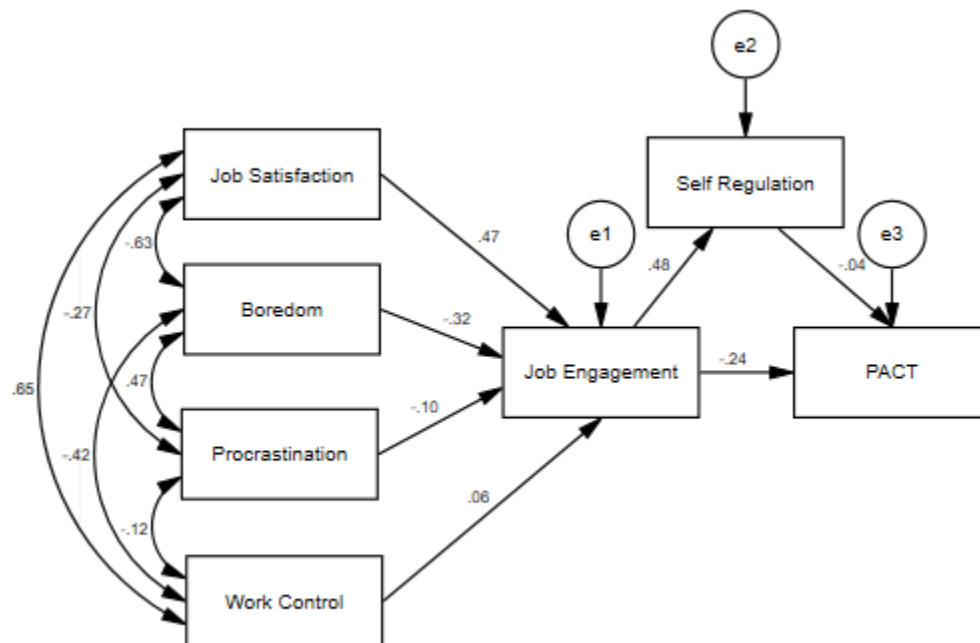


Figure 4. SEM for moderator model of PACT (standardized loadings)

Discussion

The aim of this study was to analyze the effects of various job characteristics on PACT and construct a psychological model which would be able to predict the extent in which employees engage in private activities. In order to accomplish this, a sample of 155 employees from a range of different companies was asked to participate in a one-time online survey, answering various questions related to the proposed job characteristics and PACT itself. Two theoretical models were proposed and compared with each other after the data was analyzed via SEM: the first model, Model A, used job engagement as a mediating variable between job characteristics and PACT, while the second, Model B, used work control as an additional antecedent and self-regulation as a moderator between job engagement and PACT.

Results indicate that model A fitted the data better. The reasons for this might be explained via the Job Demands-Resources Model (Bakker & Demerouti, 2007). He describes job engagement as a mediating factor between job resources and job satisfaction. This way, job satisfaction is defined as an affective consequence of a sequence and interplay of specific job elements. By comparison, PACT is a behavioral consequence negatively influenced by job engagement (confirming H1), since self-regulation proved to be an unsatisfactory moderator of their relationship in Model B (negating H6). This is further demonstrated by looking at the correlational pattern between self-regulation and PACT. One of the reasons this might be is that individuals do not see these kinds of activities as being necessary to control. Engaging in PACT might be seen as a form of control in itself, a conducting private activities is intuitively considered taking a break from work-related activities. While there is an indication that job engagement directly influences PACT without any moderators whatsoever, it might prove useful to look at other potential factors which might play a significant role in influencing the relationship between PACT and job engagement. Moreover, it would be useful to test other conceptualizations of self-regulation other than the one from Schwarzer (1999).

When it came to job engagement, several of the proposed relations to its precedents were able to be confirmed. Job satisfaction and boredom were highly correlated with job engagement, with job satisfaction being positively (confirming H2) and boredom negatively (confirming H3) related. Procrastination was also confirmed to be negatively associated with job engagement, but this relation proved to be weak (confirming H4). The only precedent which was unrelated to job engagement was work control (negating H5).

Regarding the control-variables, it was shown that PACT is unrelated to sex, education or time spent working for the company. Only the company size and hierarchical position presented accounted for differences in the extent to which PACT was engaged. This partly confirms the idea that PACT might be a constant behavior which is simply a part of everyday work life. Consequently, it can be argued that private activities cannot be viewed as either negative or positive since they will always be present at the workplace. This way, PACT can be hardly seen as something which has any relation to job productivity, which brings up the question if it even can be used to predict productivity or blamed in case of productivity loss.

Limitations and Suggestions

This study aimed to analyze a broad working force regardless of the specific characteristics which might be present in some occupational fields. The downside to this approach is that the findings cannot be applied to any specific occupation, nor can they be compared with these. Nevertheless, it offers us a small glimpse into which factors play a significant role when observing PACT. As such, the findings are moderately generalizable and their replication will prove to be problematic when applied to specific fields of work. Furthermore, the very nature of this study design offers only a small glimpse into the prevalence of PACT among white-collar workers. A longitudinal study might shed light on trends which would mostly likely vary according to the economic situation of a working context. Moreover, it would be interesting to see whether the intensification of work would have any effect on the extent to which people engage in private activities. Additionally, while this study encompassed a diverse population sample, it is still specific to the central European working milieu which could look quite different compared to cultures of not only other European regions, but other continents as well. A further limitation lay

in the nature of subject being studied. While PACT does seem to be something quite reasonably natural for many workers, others might still not be willing to disclose the information on their own behavioral patterns out of fear of being penalized at work or out of desire to preserve their privacy. This is also a part of the reason why an experimental design would be difficult to execute when it comes to PACT, seeing as a manipulation of the extent to which workers are able to conduct PACT runs contrary to ethical and practical questions. But while it might be difficult to execute, such a study design would be able to shed more light on the psychological consequences of PACT.

Many of the loadings might have potentially been higher if PACT had not been analyzed as a collective phenomenon for many different singular activities. Jiang and Tsohou (2015) raised this argument in their criticism of past attempts to study private activities at work (specifically to study personal Internet usage). Some PACT might be influenced by different antecedents than others. Furthermore, a fundamental lack of theoretical ground is missing for some of these activities. While personal Internet usage (further abbreviated as PIU) is a well-researched activity, others such as betting, chatting with colleagues and scheduling meetings are not so. Contrary to this view, the observation of antecedents on the level of particular activities might yield the same effects as the ones exposed for the general level in this study. The question then remains whether to study specific sub-constructs of these antecedents in relation to PACT. For example, while boredom might correlate significantly with PACT, what would happen if only a partial aspect of boredom were to be brought into the same relation? Or even into the relation with a particular non-work related activity? Future studies might attempt to analyze these relations in detail.

While this research encompassed a wide variety of constructs, further research might include others which could have a direct or indirect impact on PACT, both as precedents and

mediators, as well as moderators. The inclusion of psychological outcomes of PACT would also offer an extended model which could test the stability of the Model A from this study. Generally, while a lot of research has been done on why PACT occurs, the consequences of excessive engaging in private activities remains an unexplored field which might be touched upon in subsequent inquiries. Seeing as PACT “simply is there”, the actual consequences might not be apparent at all, since they might be confounded with other characteristics of the working environment. One last suggestion would be testing the model in particular organizations for a higher ecological validity. It could also shed more light on the way each precedent contributes to PACT, establishing patterns through which each of the constructs influences job engagement which in turn influences PACT. Studying PACT in organizations would also offer more control on the said precedents.

Conclusion

While the modern working world experiences an intensification of work, much less attention was given to the act of indulging oneself in private activities while being present at work. This study sought out to test several precedents known from literature to be related to PACT and was able to confirm most of these, establishing a broad model of PACT. While some of the effects proved to be weaker in relation to others, the results indicate that engaging in private activities poses a complex phenomenon which is not limited to objective characteristics of the workplace, but factors native to the human psyche and habitual actions as well. The future of this subject will rest on better research designs and an open perspective which would integrate findings from various fields of psychology, shedding further light on PACT and the way it manifests in the working environment.

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