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THE ROLE OF AFFECT IN THE ASSOCIATION BETWEEN TIME
PERSPECTIVE AND PROCRASTINATION

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The Role of Affect in the Association Between Time Perspective and Procrastination
Zaman Perspektifi ve Erteleme Arasındaki İlişkide Duygulanımın Rolü

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ABSTRACT

Previous studies define procrastination as a cause of disconnection between the future self and the present self. Studies conducted to date have revealed a relationship between time perspective and procrastination. In order to fully understand the association between these two concepts, it has been suggested that the affect has a role in this relationship. However, no study has been examined all the dimensions of affect (positive, negative and affect balance) in the relationship between procrastination and time perspective before.

The current study measures procrastination in two distinct factors: decisional and behavioral, measures all time perspectives: as past positive, past negative, present hedonistic, present fatalistic, future and deviance from the balanced perspective (DBTP) and measures all affect types as positive affect, negative affect and affect balance. The adult participants ($N=222$) filled out a survey that includes the Turkish versions of the Zimbardo Time Perspective Inventory (ZTPI), Scale of Positive and Negative Experience (SPANE), Performance Failure Appraisal Inventory (PFAI), The Adult Inventory of Procrastination (AIP) and Decisional Procrastination (DP) questionnaire. Pearson correlation and linear regression analyses showed that procrastination was significantly correlated with time perspective aspects and affect dimensions. Results stated that time perspective and affect was also have a significant relationship. To extend the previous studies, the mediation analysis showed that the relationship of decisional procrastination and past positive, past negative and deviance from the balanced perspective (DBTP) mediated by negative affect in the current study. In addition, affect balance have a significant mediator role in the relationship between decisional procrastination and time perspective. Furthermore, affect balance mediating the relationship between behavioral procrastination and past negative, present hedonistic, and DPTB. The findings suggest that negative affect and affect balance have an influencing role in the association between procrastination and time

perspective. Implications of findings were discussed and some suggestions were made for researchers, clinicians and mental health professionals.

Keywords: Procrastination, time perspective, affect, fear of failure, sensation seeking

ÖZET

Yayınlanmış birçok çalışma, ertelemeyi gelecekteki benlik ile şimdiki benlik arasındaki kopukluğun bir sonucu olarak tanımlar. Bugüne kadar yapılan araştırmalar, zaman perspektifi ile erteleme arasında bir ilişki olduğunu ortaya koymuştur. Bu iki kavram arasındaki ilişkinin tam olarak anlaşılabilmesi için bu ilişkide duygulanımın rolü olduğu ileri sürülmüştür. Ancak erteleme ve zaman perspektifi arasındaki ilişkide duygulanımın tüm boyutlarının (olumlu, olumsuz ve duygulanım dengesi) incelendiği bir çalışma daha önce bulunmamaktadır.

Mevcut çalışma ertelemeyi iki farklı faktörde ölçmektedir: kararsal ve davranışsal erteleme, tüm zaman perspektiflerini bir arada ölçmektedir: geçmiş zaman pozitif, geçmiş zaman negatif, şimdiki zaman hedonistik, şimdiki zaman kaderci, gelecek zaman ve dengeli zaman perspektifinden sapma (DBTP) olarak bir arada ve tüm duygulanım türlerini ölçmektedir: olumlu, olumsuz duygulanım ve duygulanım dengesi olarak. Yetişkin katılımcılar ($N=222$) Zimbardo Zaman Perspektifi Envanteri (ZTPI), Pozitif ve Negatif Deneyim Ölçeği (SPANNE), Performans Başarısızlığı Değerlendirme Envanteri (PFAI), Yetişkin Erteleme Envanteri (AIP) ve Kararsal Erteleme (DP) ölçeklerinin Türkçe versiyonlarını içeren bir anket doldurdu. Pearson korelasyon ve lineer regresyon analizleri, ertelemenin zaman perspektifi yönleri ve duygu boyutları ile önemli ölçüde ilişkili olduğunu göstermiştir. Sonuçlar, zaman perspektifi ve duygulanımın anlamlı bir ilişkiye sahip olduğunu ortaya koydu. Önceki çalışmaları genişletmek amacıyla, aracılık analizi yapıldı ve mevcut çalışmada olumsuz duygulanımın geçmiş zaman pozitif, geçmiş zaman negatif ve dengeli zaman perspektifinden sapma zaman perspektifleriyle kararsal erteleme arasındaki ilişkiye aracılık ettiği sonucu bulundu. Ayrıca, kararsal erteleme ve zaman perspektifi arasındaki ilişkide de duygulanım dengesi kayda değer bir aracı role sahiptir. Bunun da ötesinde, duygulanım dengesi davranışsal erteleme ile geçmiş zaman negatif, şimdiki zaman hedonistik ve dengeli zaman perspektifinden sapma (DBTP) arasındaki ilişkiye kayda değer bir şekilde aracılık etmektedir. Bulgular, olumsuz duygulanım ve duygulanım dengesinin erteleme ve zaman perspektifi arasındaki ilişkide etkili ve

aracılık eden bir role sahip olduğunu göstermektedir. Bulguların sonuçları tartışılmış olup arařtırmacılar, klinisyenler ve ruh saęlıęı uzmanları için bazı önerilerde bulunulmuřtur.

Anahtar Kelimeler: Erteleme, zaman perspektifi, duygulanım, başarısızlık korkusu, heyecan arayışı

INTRODUCTION

Clinicians and researchers define procrastination as the deliberate delay in starting or completing a task related to experiencing unpleasant feelings (Ellis and Knaus, 1977; Solomon & Rothblum, 1984) and may also be a defense mechanism to protect the vulnerable self-esteem. The underlying causes of procrastination are cognitive, behavioral, and affective dynamics for the need to meet a deadline within a specific timeframe (Ferrari & Pychyl, 2000). Procrastination is primarily measured in studies using scales based on behavioral self-reporting (i.e., "I don't get things done on time), rarely it is used a decisional procrastination scale (Mann, 1982) which focuses on delay of decisions (i.e., "I don't make decisions unless I really have to.").

Chronic procrastinators complete tasks faster than non-procrastinators, who spend more time looking for information trying to complete tasks. If time and its management are essential factors in procrastination, it is suggested that time perspective might be an important factor. Kurt Lewin (1951) defined time perspective as "the totality of the individual's views of his psychological future and psychological past existing at a given time" (p. 75).

Previous studies found that procrastination is positively associated with a present-hedonistic time orientation and negatively associated with a future time orientation using the Zimbardo Time Perspective Inventory (ZTPI; Zimbardo & Boyd, 1999; Ferrari & Díaz-Morales, 2007). In a study by Jackson, Fitch, Nagasaka, and Pope (2003), high-level present-fatalism and past-negative scores significantly correlated with procrastination. Thus, procrastinators seem to have less focus on the future than they have for the present time.

Another study found that affect (positive and negative), the subjective perception of one's self-esteem and experiences, can be the significant variable for time perspective within the context of procrastination. Negative feelings of self would be an influential factor for avoiding tasks; in contrast, positive feelings could be a motive for

completion of tasks. In addition, procrastinators, who have negative feelings, may lack concern for the future due to focusing on other time perspective (past or present) for coping with the present hard feelings. It seems reasonable to assume that time perspective could be a predictor for procrastination and affect can be mediate the relationship.

Despite these findings, we believe that the scope of these studies were limited because not all dimensions related to procrastination, time perspective and affect were taken into consideration and only a few were given particular attention.

The main purpose of the current study to comprehend the relationship between procrastination (behavioral and decisional), time perspective and affect (positive, negative and balanced). The present study differs from previous studies in the following ways: (1) measuring all Time Perspective dimensions (PP, PN, PH, PF, F, and DBTP); (2) measuring different aspects of procrastination (i.e., behavioral and decisional procrastination) , as well as (3) examining the roles of positive affect, negative affect, and affect balance as mediators in the association between time perspective and procrastination. Finally, the associations of procrastination and time perspective with sensation seeking and fear of failure were also examined. These variables can be considered as other mechanisms besides affect that link time perspective to procrastination.

CHAPTER 1

LITERATURE REVIEW

1.1. PROCRASTINATION

1.1.1. Description of Procrastination

Procrastination has demonstrated throughout the history that it is a complex structure that contains many things in its depth, despite the fact that it appears to be a simple postponement of what needs to be done. It contains a wide range of inner feelings such as fears, experiences, hopes, doubts, and dreams when it comes to its emotional roots. Most of the time, it is difficult for the person who procrastinates to recognize and process hard feelings because they arise with the intention of avoiding some unpleasant feelings while procrastinating and some inner gains when it is completed. These gains are sometimes preferable for the moment, but some studies have revealed that they are accompanied by significant resistance and fears (Burka & Yuen, 1983). A process that could not be resolved in the past, concern about the future, fear of failure, pleasure, and thrill-seeking as factors that may lead to procrastination has come to the fore.

The term procrastination is derived from two Latin words: pro, which means "forward," and crastinus, which means "of tomorrow." To use an everyday example, "I will do it tomorrow" or "I will do it later" (Merriam-Webster, n.d.). The forward statement in the word's root provides an essential hint that procrastination may be related to time perspective. According to some emerging and growing evidence, procrastinators have lower levels of future time perspective than present or past time perspectives (Sirois, 2014). When the habit of putting off what needs to be done becomes a long-term dynamic that is repeated over and over, it evolves from a simple delay and considered as a procrastination.

Procrastination can be divided into two fundamental categories: decisional procrastination and behavioral procrastination. The inability to make a timely decision or indecision due to unavoidable conflicts is called decisional procrastination (Ferrari, 1991). The conflict model of decision making proposed by Janis and Mann (1977) provides the best description for understanding decisional procrastination. They differentiate between adaptive and nonadaptive strategies of coping with adversity. One of the nonadaptive patterns is defensive avoidance, which occurs when any viable alternative is unacceptable or dangerous and the decision-maker has little possibility of finding a better answer. The individual may then attempt to avoid making a decision by procrastinating (Orellana-Damacela et al., 2000). Within this paradigm of decision-making research, Decisional Procrastination Scale (DPS) was constructed (Mann, Burnett, Radford, & Ford, 1997). This type of procrastination, as the name implies, means deferring making a decision within a certain time limit.

General procrastination concept is mostly defined with behavioral procrastination which is the delay of actions due to underestimating or overestimating the time required. According to Solomon and Rothblum (1984), the degree of procrastination and the point at which conflict occurs should be considered in conjunction due to behavioral delay and internal stress.

Similarly, Ferrari et al. (1995) emphasized that an internal conflict may play an essential role in the delayed action. Steel (2007) defined procrastination as a lack of self-regulation. For some reason, the individual cannot control his inner compulsion and thus is unable to make a decision or take action (Ferrari, 1992). Procrastination has also been proposed as a defense mechanism to protect the vulnerable self. Lay (1986) defined procrastination as an unreasonable delay in starting or completing a task that needed to be done. According to Ferrari and Beck (1998), procrastinators were aware of what needed to be done but lacked the impulse and motivation needed to complete the task in the allotted time.

1.1.2 Procrastination and Time Perspective

Procrastination, according to previous research, is a disjunction between the present and future selves caused by a breakdown in self-regulation. It represents a break between the present and the future. The majority of studies to date have found that people who procrastinate are less focused on the future (Sirois and Pychyl, 2013). In some ways, procrastination is the voluntary postponement of one's responsibilities, despite knowing the consequences of not doing so. It implies that the individual prefers to regulate own current feelings in the face of future uncertainty. As a result, it is not merged with the future self, creating a disjunction. Instead of completing an action or a thought, the individual postpones it and regulates the current emotion. The accomplishment is not as satisfying or as far away as the underlying cause of the procrastination. Instead, unfavorable, compelling, and unpleasant feelings emerge. The task that must be completed at that time serves as a bridge between the present and the future, and as a result, taking action through the bridge is not preferred due to these feelings. Even if the individual continues on the path, they may suffer irreplaceable losses as a result of the inner experiences they have left behind. Procrastination can be viewed as a relatively stable behavioral tendency with trait-like characteristics when this type of temporal self-regulation failure becomes a systematic way of responding to tasks perceived to be difficult (Pychyl et al., 2000) or lacking immediate gratification (Schouwenburg & Groenewoud, 2001).

If cyclical behavior and tendency exist, one could argue that a particular time perspective (past, present, or future) has an effect on decision-making, preferences, and judgments, resulting in a cognitive temporal bias. According to the time perspective theory (Zimbardo & Boyd, 1999) past or present time orientation influences both positive and negative daily choices. A person who is more focused on the present may be more concerned with pleasure and reward, or they may be more fatalistic and avoidant. Similarly, the past experiences of an individual can be classified as blissful or painful. If procrastination is a matter of self-regulation and immediate gratifications

and rewards are prioritized, then a present hedonistic orientation is more likely to occur (Tice & Bratslavsky, 2000). Waiting until the last possible moment and completing the task at that point may result in a greater reward and pleasure for procrastinators (Sirois & Pychyl, 2013). Some studies have discovered a link between the present hedonistic time perspective and procrastination (Díaz-Morales et al., 2008; Ferrari & Díaz-Morales, 2007; Jackson et al., 2003).

On the other hand, previous studies found a negative correlation between future time perspective and procrastination but no significant relationship with present hedonistic TP (Specter & Ferrari, 2000; Gupta et al., 2012). These results suggest a link between low levels of future time perspective and procrastination, but a less consistent link with present hedonistic time perspective. Sirois (2014) believed that differences in measurement used in studies were an important factor, and understanding the strength and reason for the link between time perspective and procrastination has become more complex. For example, in the studies mentioned above, The General Procrastination Scale (GPS) and Adult Inventory of Procrastination AIP scales were used to assess procrastination, the Zimbardo Time Perspective Inventory (ZTPI) and The Consideration of Future Consequences (CFC) scales were used to assess time perspective, and the Perceived Stress Scale (PSS) and Positive and Negative Affect Schedule (PANAS) scales were used to assess stress and affect. Despite this, not all dimensions of these variables considered for the study. Only positive affect, present and future time perspectives and behavioral procrastination were taken into analyses. Furthermore, there is a significant variation in the size of the connections between procrastination and both future and present time perspectives in published studies, implying that measuring and sample concerns may have an effect on these results. Considering these factors, the researchers advocated for extensive research to determine which procrastination behaviors are associated with time perspective as well as the mediators and moderators of this relationship.

1.1.3 Procrastination and Affect

If procrastination, which is thought to be a self-regulation failure condition, frequently comes to mind as a conscious choice to avoid negative feelings or a lack of positive feelings, there is a link between affect and procrastination at this point. Many studies have linked procrastination to negative feelings. Those with high levels of anxiety and depression had a proclivity for procrastination (Ferrari, 1991; Haycock et al., 1998; Lay et al., 1989; Martin et al., 1996; Senecal et al., 1995). Procrastination was considered a self-regulation failure in a recent study, and it was discovered that procrastination tendency increased when women had high negative affect. (Rebetez et al., 2016) This data could be viewed in the context of a dynamic self-regulatory framework of procrastination, in which procrastination appears to emerge from a complicated and possibly adaptive balance between affect regulation and impulse control. Individuals who are unable to control negative emotions in a healthy manner succumb to the desire for immediate mood restoration by participating in procrastinating behavior. (Pollack & Herres, 2020)

A longitudinal study discovered that adults with low levels of positive affect were highly unsuccessful in making healthy lifestyle changes for themselves. (Sirois 2013) When these findings are taken into account, the person faces difficulties acting from a more limited angle in the present time orientation and becomes unable to connect with the future-self due to intensity of high negative affect levels and low positive affect levels. When being trapped in a narrow-angle, it is challenging to switch between time orientations. This failure makes it difficult to establish a healthy connection between past, present, and future time aspects and failure to make transitions when necessary. Concentrating on the present moment may be a more temporary way to help procrastinators reduce dissonance associated with failing to complete critical but unpleasant chores on time or escaping negative self-evaluative thoughts. A study on procrastination and mindfulness, a type of present-centered awareness, supports this viewpoint (Sirois & Tosti, 2012). In a sample of students,

procrastination was associated with low levels of mindfulness, implying that procrastinators may become disoriented at the moment by engaging in stressful judgmental, self-critical, and reactive thoughts about their own behavior. When positive affect levels are low, the constricting effects of stress on cognitive focus may persist, and less attention is paid to the future and potential solutions to existing problems.

1.1.4 Other Factors Related to Procrastination

1.1.4.1 Sensation Seeking

Zuckerman (1979) described sensation seeking as a drive to incur physical and social risks in search of complex, diverse, and unique sensations and experiences. Sensation seeking was linked to behaviors such as reckless driving (Heino, et al., 1996), drinking alcohol (Stacy, Newcomb, & Bentler, 1993), smoking (Zuckerman, Ball, & Black, 1990), using illegal drugs (Newcomb & McGee, 1991; Zuckerman et al., 1993), and taking sexual risks (Hoyle, Fejfar, & Miller, 2000; Hoyle et al., 2002) Studies have found that those with higher sensation seeking levels perceive these situations as less risky than those with lower sensation seeking levels (Horvath & Zuckerman, 1993).

Ferrari (1992) defined arousal procrastination, which is regarded as seeking experience by procrastinating until the last moment to obtain the pleasure brought on by adrenaline, is also linked to low future orientation. Despite its emphasis on more immediate pleasures, it is also believed that the individual has a tendency for future benefits. Some considered procrastination to be a form of pleasure associated with the pursuit of excitement and risk. Challenging a deadline and deferring it until the last minute can be an arousing experience. It is believed that sensation seeking as a personality trait plays a role in understanding procrastination (Ferrari, 2001; Revelle, 1997). Procrastinators are more prone to “give in” to pleasurable short-term temptations than working on a task that requires self-control (Meier et al., 2018).

According to recent study it is discovered that procrastination is yet another explanatory mechanism linking sensation seeking to adolescent smartphone addiction. (Wang et al., 2019) The belief that completing tasks at the last possible moment brings intense pleasure and reward is a motivation for procrastination to create exciting drama in contrast to the perception of a boring life. In fact, when a person engages in procrastination, putting self in a potentially risky but exhilarating situation, hoping to reap the benefits of being challenged and then successfully overcoming it. When procrastination is made, she or he actually puts herself or himself in a risky but exciting state, seeking to take the pleasure of being challenged and finally being able to overcome it. This has been suggested as an important factor in understanding the procrastination tendency.

1.1.4.2 Fear of Failure

Curiosity has always been the driving force behind humanity's performance in its quest to understand itself. In the first studies, researchers looked into the factors that contribute to success or failure (Horner, 1968). While fear of success was firstly considered, it was later suggested that fear of failure played a role as well (Birney, 1969). Although there are minor differences between definitions and factors, subsequent research has revealed a multi-layered model. Fear of failure is currently quantified using five sub-factors to understand its etiology: (a) experiencing shame and embarrassment, (b) devaluing one's self-esteem, (c) facing an uncertain future, (d) losing social influence, and (e) upsetting significant others (Conroy, 2002).

When Ferrari (1992) examined sensation seeking as one of the underlying personal trait components of procrastination, he also examined the avoiding mechanism of fear of failure. It is believed that procrastination is used as a form of self-esteem defense and that the individual avoids doing something at that time in order to avoid experiencing a loss of self-worth. According to Burka and Yuen (1983), procrastination can be a protective strategy for a vulnerable self. When considered in

conjunction with time perspective, avoidance refers to the tendency to postpone activities in order to avoid negative feelings about oneself or personal performance, which has been found to be positively associated with a present-fatalistic orientation. People in this domain are thought to be more fatalistic in order to avoid current anxiety and cognitive load, and because they have a low sense of control over their own lives, they care less about future decisions (Ferrari, 1992).

According to Ferrari and Diaz-Morales (2007), avoidant procrastination is positively associated with present-fatalistic orientation, whereas avoidant procrastination is significantly correlated with low future time orientation. They believed that avoidant motivation was linked to a fear of failure. Procrastinators choose to avoid the possibility of failure rather than face with it.

The findings indicated that a fatalistic view of time could protect well-being in the short term. It was emphasized that procrastination tendencies associated with sensation seeking and fear of failure appear to be distinct. To be more specific, it is thought that procrastination would necessitate experimental design studies to distinguish the validity of these two motives.

1.2. TIME PERSPECTIVE

1.2.1 Definition of Time Perspective

The time perspective assumes that a person's subjective experience and perception of time influences one's feelings, decisions, and actions (Zimbardo & Boyd, 1999). Basically, time is divided into three dimensions; past, present, and future. The experiences we had in the past and how we cognitively store them in our minds, and how we feel about these experiences create subjectivities that shape our perception of the past. The information retrieved can be positive, traumatic, distorted, or negative. The fact that the mind is covered with past experiences or avoiding these experiences creates many differences over the feelings, decisions, and judgments about the scene

in the present time. The human mind frequently expects patterns and scenes learned from previous experiences to be repeated. As a result, it has a significant impact on the decisions to be made about the present or the future, the paths to be taken, and the reactions to the consequences of these scenes. At this point, the time perspective theory (Zimbardo & Boyd, 1999) asserts a direct relationship with feelings, decisions, and goals as a process comprised of cognitive temporal frames.

Zimbardo and Boyd (1999) created the Zimbardo Time Perspective Inventory to assess this complex structure. According to this inventory, time perspective can be measured in five orientations: Past Positive (PP), Past Negative (PN), Present Hedonistic (PH), Present Fatalistic (PF), and Future (F). Past Positive, which represents pleasant, enjoyable, and satisfying memories from the past. Past Negative refers to the measurement of negative, destructive, and traumatic experiences in the past in general. The Present Hedonistic Time Perspective entails focusing on the present's sense of pleasure and enjoyment while ignoring negative or insecure consequences. Present Fatalistic, on the other hand, reveals a sense of hopelessness about life and the future, as well as a sense of being powerless to change one's fate. The Future, as the final factor, reflects the orientation and perception of the future in general.

According to Zimbardo and Boyd (1999), future and present time perspectives are not conceptual opposites, and thus a low score on one does not imply a high score on the other. Time perspective was discovered to play a significant role in many basic psychological processes in this study using ZTPI. It was determined that behavioral patterns, habits, failure to meet expectations, memory, guilt, anxiety, and many other factors are all related to time perspective (Zimbardo and Boyd, 1999). Measuring time perspective across these five temporal dimensions is primarily based on dominant time perspective structures. Instead, this study assumed that a person's perception of time corresponded to specific experiences and stimuli. However, could time perspectives be more dynamic and variable, with a structure that switches between them, or even more balanced?

1.2.2 Balanced Time Perspective

A more flexible factor switching between several temporal time aspects emerged as a balanced time perspective. According to Boniwell & Zimbardo (2004), a person's perception of time changes and varies depending on their current experiences, feelings, and scenes. Balanced Time Perspective (BTP) refers to a person's ability to transition between different time perspectives in an efficient and balanced manner depending on the situation. The ability to cognitively switch between past, present, and future orientations demonstrates how one adapts to a situation based on personal experiences (Boniwell and Zimbardo, 2004; Lennings and Burns, 1998). Having a balanced time perspective and focusing equally on the past, present, and future, according to research, may be beneficial to one's health and well-being (Drake et al., 2008; Boniwell et al., 2010). According to another study, the most common time-perspective profile was having a balanced time perspective or scoring equally high on all dimensions of the ZTPI (Drake et al., 2008). People with lower future-time perspective scores were found to be less likely to consider the long-term consequences of their current decisions and actions. A low score for future time perspective indicates that the person has little investment in and focus on the future (Zimbardo & Boyd, 1999). The psychological significance of this is that there is a sense of uncertainty about the next step, which creates resistance to completing the task. If the individual does not make a mental investment in what will happen in the future, the uncertainty will turn into anxiety, and the transition to the future will be undesirable. Higher positive scores, such as past positive, present hedonistic, and future TP, are used to calculate Balanced Time Perspective. It, on the other hand, emphasizes low past negative and present fatalistic TP scores.

Some research has discovered links between a balanced time perspective and personality traits. Akirmak and colleagues, for example, discovered that neuroticism is associated with a lower BTP score (Akirmak, 2014). In another study, Stolarski (2016) proposed that BTP could mediate the relationship between mindfulness and life

satisfaction. Similarly, Stolarski and Cyniak-Cieciura (2016) discovered that in-vehicle accident survivors, a balanced time perspective mediated the relationship between temperament and trauma severity. Survivors of severe trauma who showed emotional solid reactions were more likely to adopt a negative time perspective associated with PTSD symptoms. Additionally, Akirmak et al. (2019) discovered that fundamental psychological needs related to family and culture act as a mediator between a balanced time perspective and subjective well-being. It has been proposed that social and familial constraints disrupt the equilibrium of time perspective, resulting in low subjective well-being. Individuals who are constrained by familial and cultural obligations have lower BTP scores. The deviation from balanced time perspective (DBTP) is calculated by subtracting the measured time perspective scale scores of each participant from the expected scores, calculating their squares, adding them all up, and finally calculating the square root of the final result. In general, the higher the DBTP score, the greater the deviance from the BTP. Thus, people with lower scores have a more equal distribution of the five temporal perspectives (Akirmak, 2014).

1.2.3 Time Perspective and Affect

The subjective perspective of time constantly shapes how we relate to the world. The temporal predispositions underlying the formation of this perspective evolve with the self, personality state, familial and cultural experiences. It is known that the majority of these formations were formed in the past. Past experiences and feelings are not only stored to help us remember the past, but they also serve as templates for decisions, judgments, and feelings about the present and the future (Zimbardo and Boyd, 1999). In other words, how you relate to the world in the past can influence how you relate to it now and in the future. How we perceive time creates a vital link between our consciousness and our history, determining the decisions we make or do not make, the paths we take or do not take, and the doors we open or do not open in our ever-changing life.

In a study to understand the relationship between affect and the past time orientation, Kazakina (1999) discovered a significant relationship between a past positive time orientation and life satisfaction in a sample of older adults, as well as a correlation between present time orientation and positive affect. Later, in a study with a sample of all adult stages ranging in age from 16 to 83 (Drake, et al., 2008), it was discovered that past positive TP was positively correlated with self-reported subjective happiness and past negative TP was negatively correlated with the happiness. Past negative TP is associated with psychological distress such as sadness and anxiety (Cully, et al., 2001), as well as lower life satisfaction (Cappeliez & O'Rourke, 2006).

In terms of present orientation, it has been proposed that being more focused on here and now is beneficial to one's well-being (Maslov, 1971), and it has been discovered that thinking about past experiences influences one's current feelings, judgments, and even decisions (Strack et al., 1985). It has been proposed that a person's positive or negative recall of the past can equally affect the person's behavior and that hedonistic feelings can be a mediating factor in understanding this (Strack et al., 1985). When focusing on the present, the feelings of the here and now are considered, but when focusing on the past, a comparison between what being remember and the current state is made. This difference is caused by the individual's hedonistic value.

According to Kazakina (1999), positive future orientation is the basis of personal optimism or the anticipation of positive future developments. Additionally, it has been established that contemplating the future is necessary for happiness and positive functioning. Future-oriented thinking has an effect on proactivity or healthy behavior later in life (Kahana, Kahana & Zhang, 2005).

Previous studies stated large deviations from the BTP are associated with a more negative and hopeless perception of the past, present, and future. These people have a more negative perspective on their relationships, past, and feelings. A negative perspective of the past and present time lead to less internal and intellectual investment in the future. BTP is promoted in time perspective treatment by increasing positive past and present thinking, developing future objectives and decreasing negative past and

future thinking (Zimbardo, Sword, & Sword, 2012). In another study, Akirmak (2014) discovered that positive self-perception and interpersonal relationships were associated with smaller deviations from balanced time perspective (DBTP) when he studied the relationship of self-perception and interpersonal relationships with time perspective. It has been proposed that the effects of previous experiences and relationships on personality development influence the formation of time perspective. A more secure parent and a less anxiety-inducing romantic relationship result in a more balanced time perspective, and as these feelings fade, the offsets increase.

Literature suggested that past positive time perspective was associated with high self-esteem, long-lasting connections with greater network size, and high life satisfaction, whereas past negative TP was associated with low self-esteem, less family support, and more relational conflict (Holman & Zimbardo, 2009; Zhang & Howell, 2011; Zimbardo & Boyd, 1999). Additionally, past negative and present fatalistic were associated with a high level of neuroticism and a low level of extraversion. In comparison, past positive TP was associated with a low level of neuroticism, a high level of extraversion, and a high level of openness to new experiences (van Beek et al., 2011). Similarly, present hedonistic TP was linked to extraversion, openness to new experiences, and novelty seeking (Zimbardo & Boyd, 1999). Finally, future TP was linked to conscientiousness and self-esteem but not trait anxiety, aggression, or depression (Zimbardo & Boyd, 1999). According to these findings, past positive, present hedonistic, and (to a lesser extent) future are associated with a more positive self-perception, whereas past negative and present fatalistic time perspectives are associated with a more negative self-perception.

As a result, we can assert that time perspective and subjective well-being, which includes the concepts of positive, negative, and affect balance, have a significant and robust relationship.

1.3. AFFECT BALANCE

Based on the theories proposed to understand human beings' universal basic needs and functionality, the concept of subjective well-being has emerged. Since the importance of psychological well-being has been recognized, it has been occupied a prominent position in research related to many human behaviors, decisions, and evaluations. Many processes, discomforts, and difficulties were related to a person's level of positive or negative feelings and experiences. It has been suggested that the concepts of subjective well-being and psychological well-being are distinct from one another. Subjective well-being is defined as how a person sees herself positions herself, and feels in relation to others, whereas psychological well-being is defined as a universal optimal state of being for the person's functionality (Ryan & Deci, 2000, 2001; Ryff, 1989).

For a very long time, these measurements were made separately on positive and negative feelings. For these assessments, Watson, Clark, and Tellegen's (1988) Positive and Negative Affect Schedule, known as the PANAS, was used. Positive feelings were classified as healthier, pleasant, and desirable, while negative feelings were classified as unhealthy, disturbing, and unpleasant. However, it was discovered after a while that these measurements did not define the feelings. Instead of feelings, expressions such as "active," "strong," and "alert" were used to make assessments. Similarly, while there were expressions for negative feelings like "angry" and "afraid," feelings like "sadness" and "unhappiness" were not included. Realizing these limitations, Diener (2009) created the Scale of Positive and Negative Experience (SPANE) in order to measure well-being.

Definitions expressing positive and negative feelings were given in a mixed form and became universal by eliminating cultural differences. Affect balance emerged as a concept to measure the balance between the two, as well as the concepts of Positive Affect and Negative Affect. This provided a separate dimension to measure the overall affect balance score. The affect balance (SPANE-B) subscale calculated by subtracting

negative feelings score from positive feeling score with a score ranging from -24 (unhappiest) to 24 (happiest) A respondent with a very low score of -24 states that he or she rarely or never experiences any of the positive feelings and frequently or always experiences all of the unpleasant feelings (Diener et al., 2009). Because the presence of positive or negative feelings does not dictate whether the other affect dimension is greater or lesser, a person may experience both fear and enjoyment over time. For example, someone with a very low affect balance score is considered to have very rare or no positive feelings and experiences. In a study, a significant role of affect balance in the relationship between emotional intelligence and life satisfaction was found (Liu et al., 2013). People with high emotional intelligence have lower stress and negative affect tendencies, but they have a more positive affect, which helps them gain social support and improve their personal performance (Koydemir & Schütz, 2012; Salovey & Mayer, 1990). People with low resilience are more susceptible to negative affect balance, which reduces their resistance, action, and functionality (Liu et al., 2013).

Although few studies separately measure balance affect, it may be worthwhile to evaluate balance affect, as well as positive and negative affect, in order to gain a better understanding of the causes of procrastination. In this regard, the current study is a first in terms of understanding the role of positive affect, negative affect, and affect balance in relation to procrastination and time perspective.

1.4. CURRENT STUDY

According to the literature, there is a strong link between procrastination and time perspective. Time perspective disparity has been discovered to be a factor that either increases or decreases procrastination trait. As a result, there is a greater need to understand the relationships between them. Throughout history, the concept of affect has been recognized as an aspect influencing this bilateral interaction, though research has always treated this relationship with certain limitations.

Sirois (2014) stated that procrastination is a temporal self-regulation problem between the present and future self, based on a highly detailed meta-analysis study on the relationship between procrastination and Time Perspective. Sirois (2014) has examined nine empirical studies on the relationship between procrastination and time perspective. She compared the differences in the results and models obtained from these studies, which used different scales and samples. (GPS) and AIP scales were used to assess procrastination, ZTPI and CFC were used to assess time perspective, and the PSS and PANAS were used to assess stress and affect. Procrastination and future time perspective were found to be negatively correlated in all 14 analyses, whereas procrastination and present time perspectives were found to be positively correlated in all but two of the eight samples. As a result, procrastination was associated with stress, which was associated with a negative future time perspective, and negatively with positive affect, which was associated with a positive future time perspective. Sirois (2014) conducted a mediation analysis to determine the role of positive affect and stress as mediators in the relationship between procrastination and low future time perspective. As a result, positive affect and stress were discovered to play a mediating role in the relationship between procrastination and time perspective. Stress can impair one's ability to focus on the future and constrain the development of strategies for resolving immediate problems. These findings, however, are not conclusive because the indirect effect was found to be insufficient in one sample, and the mediator effect sizes were also found to be small.

The main aim of the present study is to overcome some of these aforementioned limitations and contribute to the time perspective and procrastination literature. Specifically, the role of both negative affect and positive affect in the association between procrastination and time perspective will be examined. The goal of investigating it this way is to figure out what kind of impact time perspective has on procrastination. According to Bradburn's (1969) affect balance theory, the absence of negative affect does not presuppose the presence of positive affect. Because of the frequently observed correlation between positive and negative affect and various

dimensions, this concept has gained widespread acceptance over the years. Thus, the relationship between time perspective and procrastination can be explained in terms of both decreasing and increasing positive affect levels, as well as decreasing and increasing negative affect levels. This enables a complete understanding of the indirect effect of time perspective on procrastination. Firstly, the relationship between all of time perspective dimensions (PP, PN, PH, PF, F, and DBTP), two different procrastination traits (Behavioral and Decisional), and all affect types (PA, NA, BA) will be examined. The effect of the person's subjective well-being on the time perspective and accordingly the procrastination tendency will be analyzed. We will replicate Sirois's (2014) study and replace the missing variables and the conceptual modeling error that causes deficient results for us. Time perspective was considered as a causal factor for procrastination in many previous studies, and even in procrastination's definition, it was expressed as a failure and disjunction between time perspectives. Sirois (2014), in contrast to the literature, modeled time perspective as a result of procrastination by including affect to better understand the relationship between these two variables. However, we know that, according to the time perspective theory, time perspective is shaped by early childhood experiences through family, culture and education (Zimbardo, & Boyd, 1999). According to the time perspective theory, a human uses these temporal frames to encode, store, and recall the past, while also using them as templates for current and future desires, ambitions, and expectations (Zimbardo & Boyd, 1999). Considering all these together, the fact that time perspective is a pre-formed element would be a more accurate prediction in terms of both affect and procrastination. We know mediating role of the affect from the previous study (Sirois, 2014) and to bring a new perspective to the literature, the current study conceptually and empirically will take into account modeling time perspective as a predictor, affect as a mediator, and procrastination as an outcome. Affect will be modeled as multiple mediators in this relationship, as positive and negative affect simultaneously, and affect balance will be modeled separately as a single mediator. In doing so, their role as mediators and moderators will be assessed.

For purposes of further exploration, we will examine whether affect moderates the relationship between procrastination and time perspective to provide further support to Sirois's findings and have more comprehensive understanding. Sirois (2014) modeled the moderating effect of affect only on positive affect and investigated the indirect effect of procrastination on the future time perspective with a similar conceptual error as in the mediation model. Considering that this construct is also set up incorrectly as previous mediation model, we will consider the positive, negative, and affect balance as moderators and examine the size of the effect of time perspective that predicts procrastination.

Ferrari and colleagues (2008) distinguished three types of procrastination: decisional (inability to make a decision within a specified time period); arousal (purposefully waiting until the last minute for a seeking sensation, yielding pleasure from "beating the clock"); and avoidance (delayed motivation by a desire to prevent evaluation and fears). Procrastination is associated with demographic characteristics in non-English-speaking adult samples (Diaz-Morales, Ferrari, Argumedo, & Diaz, 2006) and is common in the United Kingdom, Australia, Spain, Peru, and Venezuela (Ferrari, Diaz-Morales, O'Callaghan, Diaz, & Argumedo, 2007); however, little is known about Turkish adults' procrastination tendency. In a previous study, Ferrari and colleagues (2009) found that Turkish adults who had arousal and avoidant procrastination tendency to be more indecisive. Ferrari's study looked at three different outcomes: avoidant, arousal, and decisional procrastination. However, the analysis showed that people who experience arousal and avoidant feelings spend more time making their decisions. In our opinion, at this point, arousal and avoidant dynamics can be not only a result but also causal for procrastination. As a result, it was hypothesized in the current study that sensation seeking (arousal), and fear of failure (avoidance) would mediate the effect of time perspective on procrastination in order to investigate both decisional and behavioral procrastination tendencies further.

To our knowledge, this study is the first research in the literature on measuring all dimensions of affect in the association between time perspective and

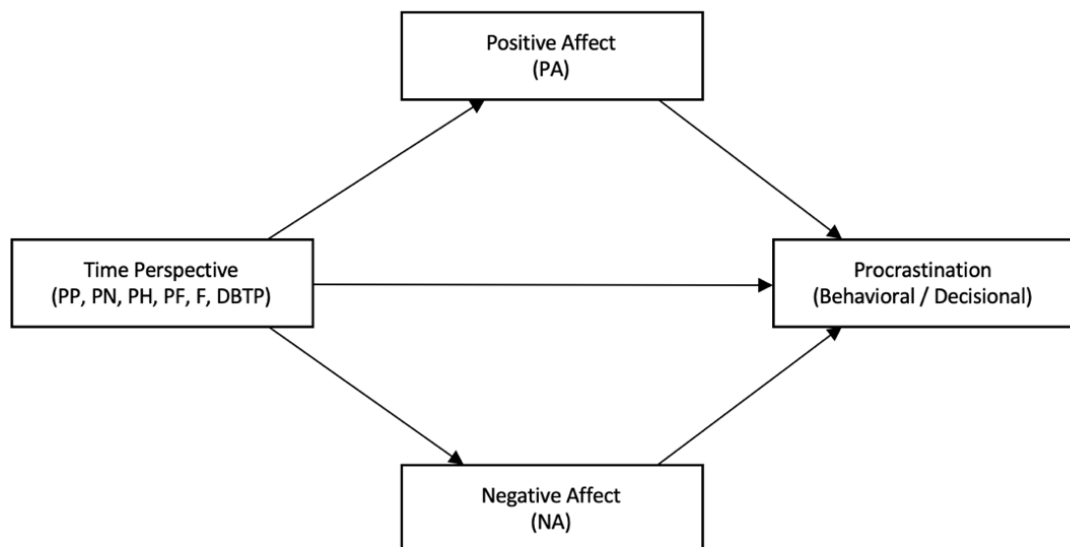
procrastination. Also, the first research that will study the role of positive affect and affect balance on procrastination in a Turkish sample. In addition, besides the role of affect, the roles of sensation seeking and performance failure in the association between time perspective and procrastination will be examined. It is aimed that the results of this study will have important theoretical as well as practical outcomes. Specifically, our findings may be beneficial for the development of therapeutic studies on individuals with chronic procrastination dynamics.

Within the scope of this study, the following research questions will be examined:

A. How do time perspective (Past/Present/Future orientation & Balanced time perspective), affect (Positive / Negative / Balanced), and procrastination (Behavioral and Decisional) relate to each other?

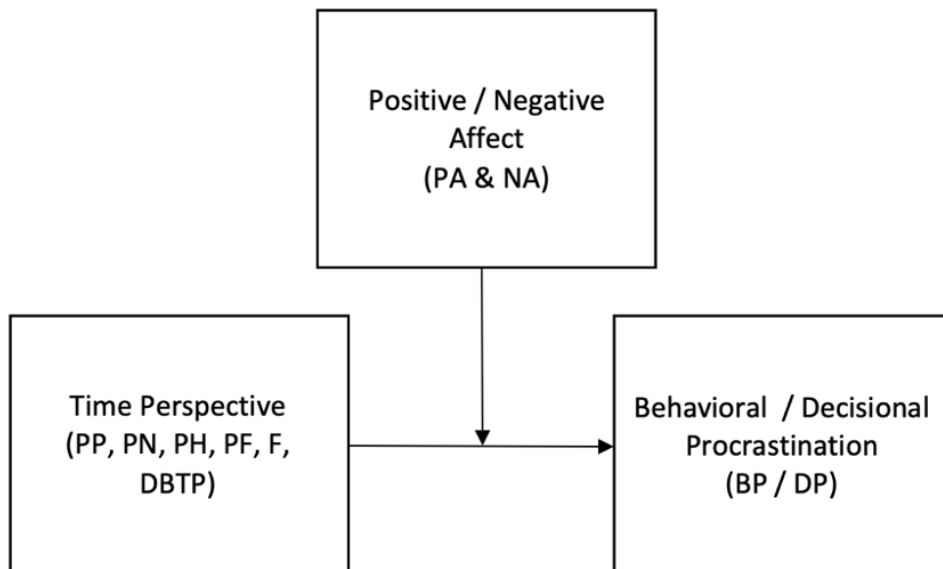
1. Does positive and negative affect simultaneously mediate the association between time perspective (IV) as a predictor and Behavioral & Decisional procrastination as an outcome (DV)? (see Fig. 1.4.1)

Figure 1.4.1 *Model Tested in Hypothesis A1*



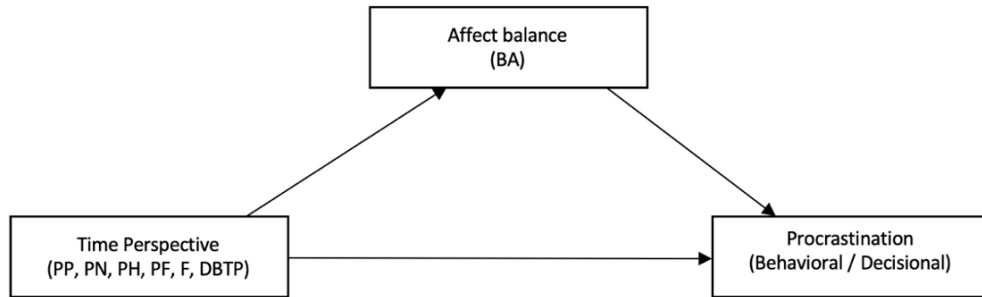
2. Does positive and negative affect moderate the association between time perspective (IV) as a predictor and Behavioral & Decisional procrastination as an outcome (DV)? (see Fig. 1.4.2)

Figure 1.4.2 *Model Tested in Hypothesis A2*



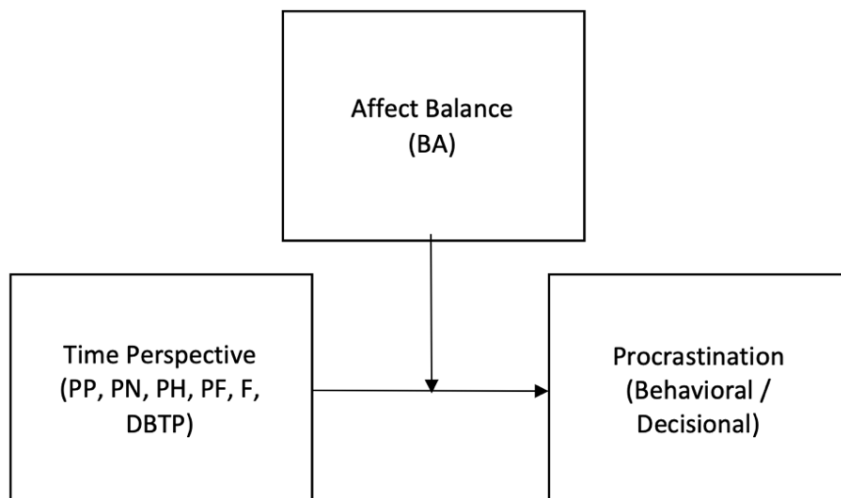
3. Does affect balance mediate the association between time perspective (IV) as a predictor and Behavioral & Decisional procrastination as an outcome (DV)? (See Fig.1.4.3)

Figure 1.4.3 *Model Tested in Hypothesis A3*



4. Does affect balance moderate the association between time perspective (IV) as a predictor and Behavioral & Decisional procrastination as an outcome (DV)? (See Fig.1.4.4)

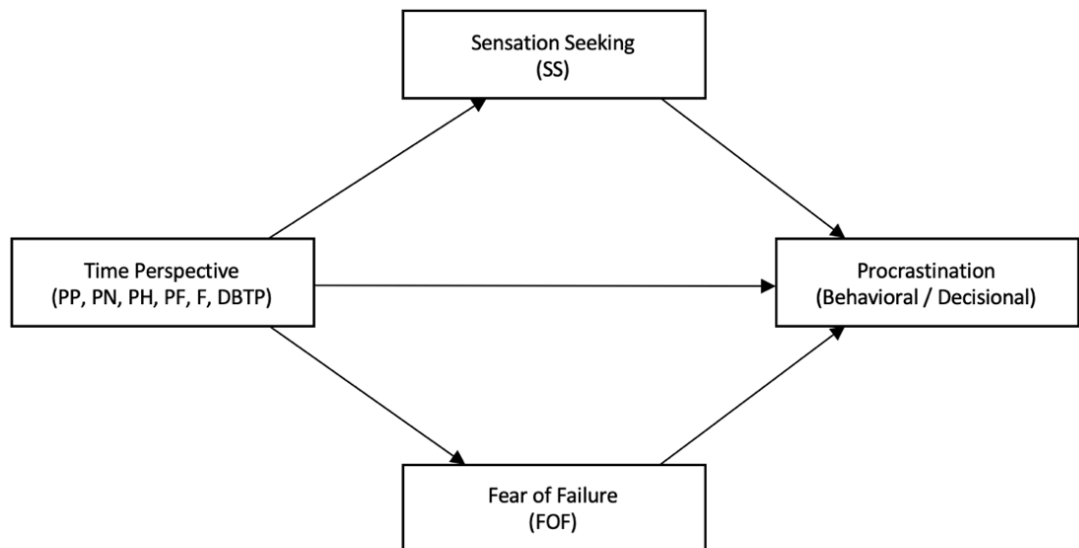
Figure 1.4.4 *Model Tested in Hypothesis A4*



B. How do time perspective (Past/Present/Future orientation & Balanced time perspective), fear of failure & sensation seeking, and procrastination relate to each other?

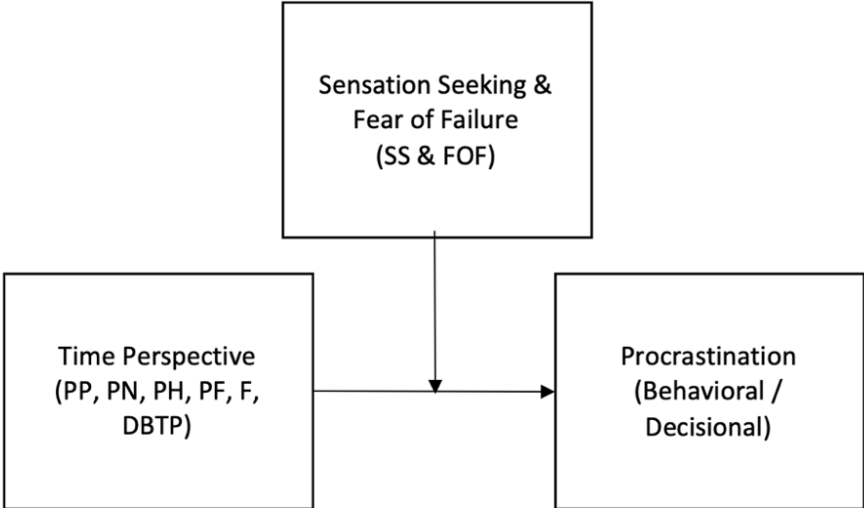
1. Do fear of failure & sensation seeking simultaneously mediate the association between time perspective (IV) as a predictor and Behavioral & Decisional procrastination as an outcome (DV)? (See Fig.1.4.5)

Figure 1.4.5 Model Tested in Hypothesis B1



2. Do fear of failure & sensation seeking moderate the association between time perspective (IV) as a predictor and Behavioral & Decisional procrastination as an outcome (DV)? (See Fig. 1.4.6)

Figure 1.4.6 *Model Tested in Hypothesis B2*



CHAPTER 2

METHOD

2.1. Participants

All the participants were older than 18 years of age, and there were no other restrictions for participation besides age. A total of 222 adults (77.0 % females, 22.5 % males and 0.5 % others) were recruited through convenience and snowball sampling with an anonymous survey link shared in university e-mail groups, social media groups, and personal contacts for the study. Participants aged between 18 to 75. ($M = 40.1$, $SD = 14.3$) An ethics approval was obtained from Istanbul Bilgi University Human Studies Ethics Board. All participants voluntarily attended the study. No incentive was provided for participation. The demographic information of the sample regarding age, gender, study, and working status is presented at Table 2.1.

Table 2.1 *Demographic Information of Participants*

		N	%
Gender	Female	171	77
	Male	50	22.5
	Other	1	0.5
Studying	Yes	36	16.2
	No	186	83.8
Working	Yes	165	74.3
	No	57	25.7

2.2. Measures

The participants completed six different questionnaires and a demographic information form. Turkish versions of Zimbardo Time Perspective Inventory (ZTPI), Scale of Positive and Negative Experience (SPANE), Brief Sensation Seeking Scale (BSSS), Performance Failure Appraisal Inventory (PFAI), Adult Inventory of Procrastination (AIP), and the Decisional Procrastination (DP) scale were used to collect data in this study.

2.2.1. Demographic Information Form

Demographic information form included questions regarding their age, gender, current study status, and current working status. (See Appendix A.)

2.2.2. Zimbardo Time Perspective Inventory (ZTPI)

The Zimbardo Time Perspective Inventory (ZTPI) is a self-report questionnaire developed by Zimbardo (1999) to investigate how people project themselves in time based on their orientation (to the past, present, and future) and attitudes (positive, negative, fatalistic, or hedonistic). The Turkish version of ZTPI has been adapted by Akirmak (2019) which was used in this study, consists of 56 items rated on a 5-point Likert scale (1= very uncharacteristic, 5 = very characteristic). This inventory measures participants' perception of time in five subscales which include Past Positive (PP), Past Negative (PN), Present Hedonistic (PH), Present Fatalistic (PF), and Future (F). Cronbach's Alpha estimates were as follow respectively .75, .82, .77, .74 and .74 in the current study.

In addition, deviation from balanced time perspective (DBTP) was calculated as an indicator to assess how much the person deviates from the balanced time perspective (Stolarski, Bitner, & Zimbardo, 2011). Having a high DBTP score indicates

larger deviations from the balanced time perspective. It is calculated with the following formula;

$$DBTP = \sqrt{\frac{(iPN - ePN)^2 + (iPP - ePP)^2 + (iPF - ePF)^2 + (iPH - ePH)^2 + (iF - eF)^2}{2}}$$

2.2.3. Scale of Positive and Negative Experience (SPANE)

SPANE is a self-report questionnaire developed by Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi & Biswas-Diener (2009) to assess a person's positive and negative feelings. The Turkish translated version of SPANE, which was used in the current study, has 12-item rated on a 5-point Likert scale (1 = Never, 5 = Always) includes six items to assess positive feelings and six items to assess negative feelings. The scale is comprised of three subscales which Positive Feelings (SPANE-P), Negative Feelings (SPANE-N), and Affect Balance (SPANE-B). The positive, good, pleasant, happy, joyful, and contented items were given for assessing positive feelings. The other six items, which are negative, bad, unpleasant, sad, afraid, and angry, were used to score negative feelings. The score can vary from 6 (lowest possible) to 30 (highest positive or negative feelings score) (Diener et al., 2009).

The negative feelings score was subtracted from the positive feelings score to calculate SPANE-B, which assesses the balance of feelings. Scores vary from -24 (unhappiest possible) to 24 (highest affect balance possible). The internal consistency estimates were .92, .84, and .91 for SPANE-P, SPANE-N, and SPANE-B in the current study.

2.2.4. Brief Sensation Seeking Scale (BSSS)

BSSS is designed by Hoyle, Stephenson, Palmgreen, Lorch, and Donohew (2002) to measure a person's seeking of sensation. Turkish version of the BSSS, used in the current study, consists of 8 items on a Likert scale (strongly disagree, disagree, neither disagree nor agree, agree and strongly agree) based on self-assessment questions. Examples of questions include "I would like to explore strange places", "I like wild parties", etc. Higher scores indicate a higher degree of sensation seeking. In the current study, the internal reliability of BSSS was .69.

2.2.5. Performance Failure Appraisal Inventory (PFAI)

PFAI is a self-report inventory developed by Conroy (2001) to measure the strength of individuals' belief in failing. Turkish version of the short form has been adapted by Kahraman and Sungur (2016), which is used in this study, consists of 25 items rated on a 5-point Likert scale. It measures fear of failure in five subscales included, including the fear of shame and being embarrassed, the fear of devaluing one's self estimate, the fear of having an uncertain future, the fear of losing social influence scale, and the fear of upsetting important others. The inventory includes questions like "*When I am failing, it upsets my "plan" for the future*", "*When I am failing, I am afraid that I might not have enough talent*". The scale had an internal consistency estimate of 0.92 in the current study.

2.2.6. The Adult Inventory of Procrastination (AIP)

AIP is a self-report questionnaire developed by McCown and Johnson (1989) to assess behavioral procrastination levels in adults. This scale assesses procrastination motivated by fears of success or failure, avoidance of skill failures, or insecurities about performance (Ferrari, 1991). AIP consists of 15-items on a 5-point Likert scale (1 = I

strongly disagree, 5 = I strongly agree) which includes seven items that are reverse-scored. The inventory consists of items such as, *"I pay my bills on time"*, *I prepare my clothes the night before so I won't be late for my appointment*. The Turkish version of AIP has been adapted by Özer (2013) used in the current study. Higher scores indicate more behavioral procrastination, such as; delaying the payment of invoices, failing to meet deadlines. In the current study, the internal consistency of the scale was .90

2.2.7. Decisional Procrastination (DP)

DP is a self-report questionnaire developed by Mann (1982) to assess a person's decisional procrastination level, which is the inability to make a decision within a specified time. The Turkish version has been adapted by Balkıs (2013), which is used in the current study. This scale consists of 5-item on a 5-point Likert scale (1 = Not true, 5= True). Examples of items include *"I postpone making decisions until it's too late."* and *"I spend a lot of time on unnecessary issues before I make my final decision."* Cronbach's alpha in the current study was .85 for internal reliability of the Decisional Procrastination scale.

2.3. Procedure

After the approval of the institutional ethics review committee, study materials were delivered via the online platform SurveyMonkey for data collection. The survey was distributed to university students, social media, and personal contacts. Informed consent was given at the beginning of the study, where the researcher's contact information is shared with participants in case any questions arise about the study. Participants would be able to withdraw at any time and any part of the study. Participants filled out the Zimbardo Time Perspective Inventory, Scale of Positive and Negative Experience, Brief Sensation Seeking Scale, Performance Failure Appraisal Inventory, Adult Inventory of Procrastination, and the Decisional Procrastination (DP)

scale. All scales have reliable and valid adaptations of Turkish versions. These instruments were given in random order and were administered via SurveyMonkey. At the end of the study, participants were asked to fill the demographic information form.

2.4. Data Analysis

In this study, only behavioral and decisional procrastination were used as dependent variables. Types of Time Perspective (PP, PN, PH, PF, F, and DBTP) were used as independent variables and predictors in all analyses. Based on the literature and established theoretical models, mediation analysis constructed TP as predictor, positive & negative affect and affect balance as mediators, procrastination as an outcome. For exploring other factors of procrastination, fear of failure & seek of sensation were also measured as mediators, and TP as predictor. To understand, the effect of TP, moderation analyses were also conducted. In the first moderation analysis, types of affect (PA, NA, & BA) were used as moderators, Procrastination (BP & DP) as DV and TP (PP, PN, PH, PF, F and DBTP) as IV. On the other model for moderation analysis, Seeking Sensation & Fear of Failure as moderators, TP as predictor and Procrastination as outcome. Using SPSS software, Pearson correlation and Linear Regression analyses were conducted. Mediation and moderation analyses were conducted using Jamovi (2020).

CHAPTER 3

RESULTS

The means, standard deviations, and inter-correlations of ZTPI, SPANE, BSSS, PFAI, AIP, and DP are shown in table 3.1.

3.1. Descriptive Analyses

All of the means, standard deviations, and inter-correlations are shown in Table 3.1. Cronbach's alpha coefficients ranged between .69 and .92, with BSSS having the lowest and positive affect (PA) having the highest reliability estimate. These values were all close to or above the recommended value of 0.70, indicating adequate internal consistency.

As expected, the correlations showed that behavioral procrastination (BA) was statistically highly significant and negatively correlated with future TP and it was positively and significantly correlated with present hedonistic (PH) TP. Similarly, DP was strongly and negatively correlated with Future TP and highly positively correlated with PH to a more extent with behavioral procrastination (BP). Distinctly, DP and Past Negative (PN) time perspective had a strongly positive correlation, and decisional procrastination (DP) was positively related to deviation from the balanced time perspective (DBTP). There were no significant correlations between BP and DBTP. Neither were between Decisional Procrastination and Present Hedonistic TP.

Behavioral Procrastination was related to all affect measures (PA, NA and BA) according to the correlation analyses. Mainly, it was highly significant and negatively correlated with positive (PA) and affect balance (BA). Also, it positively correlated with negative affect (NA).

To a more extent, correlations showed that affect scores had a strong influence on decisional procrastination. Both positive (PA) and affect balance (BA) were highly

statistically and positively related to procrastinations based on decisions. Also, as expected, there was a highly statistically significant and negative correlation between decisional procrastination and negative affect (NA).

Correlations results showed sensation seeking and fear of failure were statistically highly positive correlated with decisional procrastination. Although not as strong as with decisional procrastination, significant positive correlation was also found between sensation seeking & fear of failure and behavioral procrastination. (See Table 3.1.)

Table 3.1. Means, standard deviations, and correlations of the variables.

	M	SD	Cronbach's Alpha	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Past Negative	3.02	0.64	0.82	—												
2. Past Positive	3.58	0.52	0.75	-0.29 ***	—											
3. Present Fatalistic	2.63	0.57	0.74	0.37 ***	-0.01	—										
4. Present Hedonistic	3.19	0.46	0.77	0.04	0.21 **	0.28 ***	—									
5. Future	3.61	0.46	0.74	0.12	0.13	-0.32 ***	-0.27 ***	—								
6. DBTP	2.90	0.57	0.74	0.75 ***	-0.48 ***	0.37 ***	-0.26 ***	0.41 ***	—							
7. Positive Affect	3.36	0.79	0.92	-0.29 ***	0.20 **	-0.16 *	0.19 **	0.20 **	-0.22 **	—						
8. Negative Affect	2.47	0.80	0.84	0.38 ***	-0.20 **	0.16 *	-0.17 **	-0.04	0.33 ***	-0.60 ***	—					
9. Affect balance	0.44	0.71	0.91	-0.37 ***	0.22 ***	-0.18 **	0.20 **	0.14 *	-0.31 ***	0.89 ***	-0.90 ***	—				
10. Sensation Seeking	2.87	0.65	0.69	0.10	-0.03	0.07	0.53 ***	-0.20 **	-0.12	0.00	0.01	0.00	—			
11. Fear of Failure	2.53	0.70	0.92	0.43 ***	-0.05	0.18 **	0.13	0.03	0.32 ***	-0.28 ***	0.30 ***	-0.32 ***	0.24 ***	—		
12. Behavioral Procrastination	2.37	0.72	0.85	0.17 *	-0.14 *	0.18 **	0.15 *	-0.50 ***	-0.07	-0.24 ***	0.19 **	-0.24 ***	0.17 *	0.18 **	—	
13. Decisional Procrastination	2.53	0.92	0.89	0.35 ***	-0.14 *	0.26 ***	0.06	-0.30 ***	0.18 **	-0.32 ***	0.36 ***	-0.38 ***	0.23 ***	0.35 ***	0.55 ***	—

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

3.1.1. Positive and Negative Affect as Mediator

Positive and negative affect scores were both analyzed as multiple mediators in the association between time perspective (predictor) and behavioral & decisional procrastination (outcome). In the first model, positive affect (PA) and negative affect were regressed on time perspective (TP) aspects (PP, PN, PH, PF, F, and DBTP) to assess *a*, behavioral procrastination was regressed on time perspective and PA and NA to assess *b* and *c'*, respectively. The same model was then repeated, entering behavioral procrastination separately as a dependent variable with decisional procrastination as a single DV. The aim here was to use positive and negative affect as multiple mediators and see the effect of Time Perspective (IV) on its relationship with Behavioral and Decisional Procrastinations (DV) separately. (See Fig. 3.1.1)

95% bias-corrected bootstrap confidence intervals for the direct and indirect effects were computed on 5000 bootstrap samples evaluated based on the Generalized Linear Model.

The results showed that Negative Affect mediated the relationship between Past Time Perspectives (predictor) and Decisional Procrastination (outcome). The confidence intervals of the indirect effects of Past Positive, Past Negative and DBTP were as follows: $ab = -0.42$ with 95% CI $[-0.96, -0.10]$, $ab = 0.48$ with 95% CI $[0.06, 0.97]$, and $ab = 0.12$ with 95% CI $[0.03, 0.24]$ respectively for PP, PN and DBTP. According to the results, past time perspectives predict the decisional procrastination when negative affect in the role of mediator. The results are presented in Table 3.1.1a.

Table 3.1.1a. *Effects of Time Perspective on Decisional Procrastination via Positive and Negative Affect*

Independent Variable	Mediator	Indirect			Direct			Total		
		<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>
Past Positive	Positive Affect	-0.26	0.19	-0.76 to 0.01	-0.52	0.57	-1.62 to 0.63	-1.20	0.55	-2.29 to -0.11
	Negative Affect	-0.42	0.20	-0.96 to -0.10						
Past Negative	Positive Affect	0.29	0.20	-0.02 to 0.79	1.71	0.53	0.68 to 2.77	2.48	0.53	1.61 to 3.36
	Negative Affect	0.48	0.22	0.06 to 0.97						
Present Hedonistic	Positive Affect	-0.34	0.20	-0.92 to -0.04	1.35	0.64	0.09 to 2.68	0.55	0.66	-0.74 to 1.85
	Negative Affect	-0.46	0.23	-1.08 to -0.10						
Present Fatalistic	Positive Affect	0.03	0.03	-0.00 to 0.12	0.32	0.11	0.07 to 0.54	0.41	0.10	0.21 to 0.62
	Negative Affect	0.06	0.03	0.00 to 0.15						
Future	Positive Affect	-0.03	0.04	-0.14 to 0.02	-0.53	0.13	-0.80 to -0.27	-0.60	0.12	-0.85 to -0.30
	Negative Affect	-0.02	0.04	-0.12 to 0.05						
DBTP	Positive Affect	0.05	0.03	-0.00 to 0.15	0.11	0.12	-0.13 to 0.36	0.29	0.10	0.08 to 0.50
	Negative Affect	0.12	0.05	0.03 to 0.24						

Note. *N* = 222. *CI* = bias-corrected bootstrapped confidence intervals, DBTP = deviation from balanced perspective. Statistically significant effects are printed in bold type.

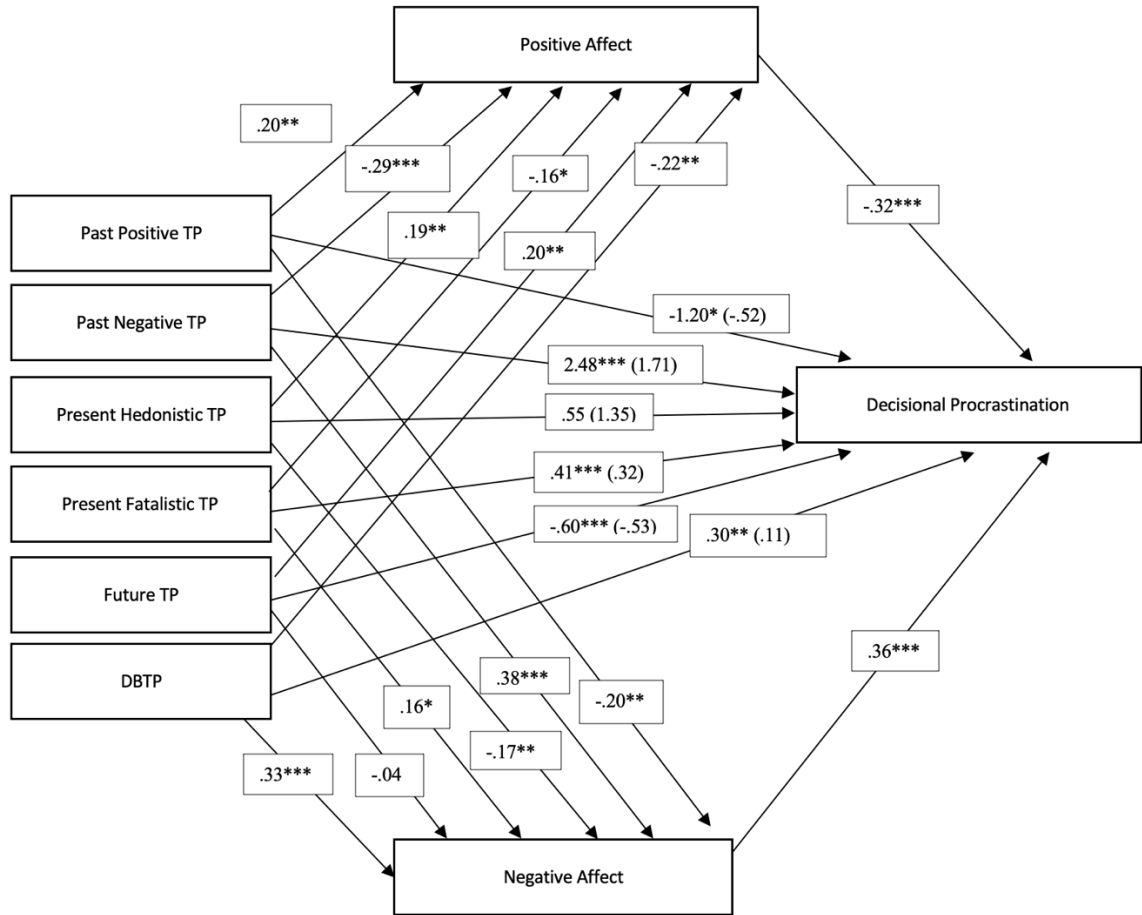
On the other hand, mediation analysis showed TP had no indirect effect on behavioral procrastination when positive and negative affect served as multiple mediators. (See Table 3.1.1b)

Table 3.1.1b. *Effects of Time Perspective on Behavioral Procrastination via Positive and Negative Affect*

Independent Variable	Mediator	Indirect			Direct			Total		
		<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>
Past Positive	Positive Affect	-0.04	0.03	-0.13 to -0.00	-0.11	0.09	-0.29 to 0.07	-0.17	0.08	-0.35 to -0.00
	Negative Affect	-0.01	0.02	-0.09 to 0.02						
Past Negative	Positive Affect	0.05	0.03	0.00 to 0.14	0.11	0.07	-0.04 to 0.26	0.19	0.07	0.04 to 0.33
	Negative Affect	0.01	0.04	-0.06 to 0.11						
Present Hedonistic	Positive Affect	-0.06	0.03	-0.16 to -0.00	0.31	0.08	0.13 to 0.48	0.22	0.10	0.02 to 0.43
	Negative Affect	-0.02	0.02	-0.10 to 0.01						
Present Fatalistic	Positive Affect	0.03	0.02	0.00 to 0.11	0.17	0.09	-0.02 to 0.36	0.21	0.08	0.05 to 0.38
	Negative Affect	0.01	0.02	-0.02 to 0.07						
Future	Positive Affect	-0.01	0.03	-0.09 to 0.03	-0.75	0.08	-0.91 to -0.58	-0.78	0.09	-0.96 to -0.60
	Negative Affect	-0.00	0.01	-0.07 to 0.01						
DBTP	Positive Affect	0.05	0.03	0.00 to 0.14	-0.19	0.09	-0.36 to -0.01	-0.08	0.08	-0.25 to -0.07
	Negative Affect	0.05	0.04	-0.02 to 0.15						

Note. $N = 222$. *CI* = bias-corrected bootstrapped confidence intervals, DBTP = deviation from balanced perspective. Statistically significant effects are printed in bold type.

Fig. 3.1.1. Summary of the Paths for the Effect of Time Perspectives on Decisional Procrastination via Positive Affect and Negative Affect.



Note. Coefficient in brackets is the total effect.

3.1.2. Affect balance as a Mediator

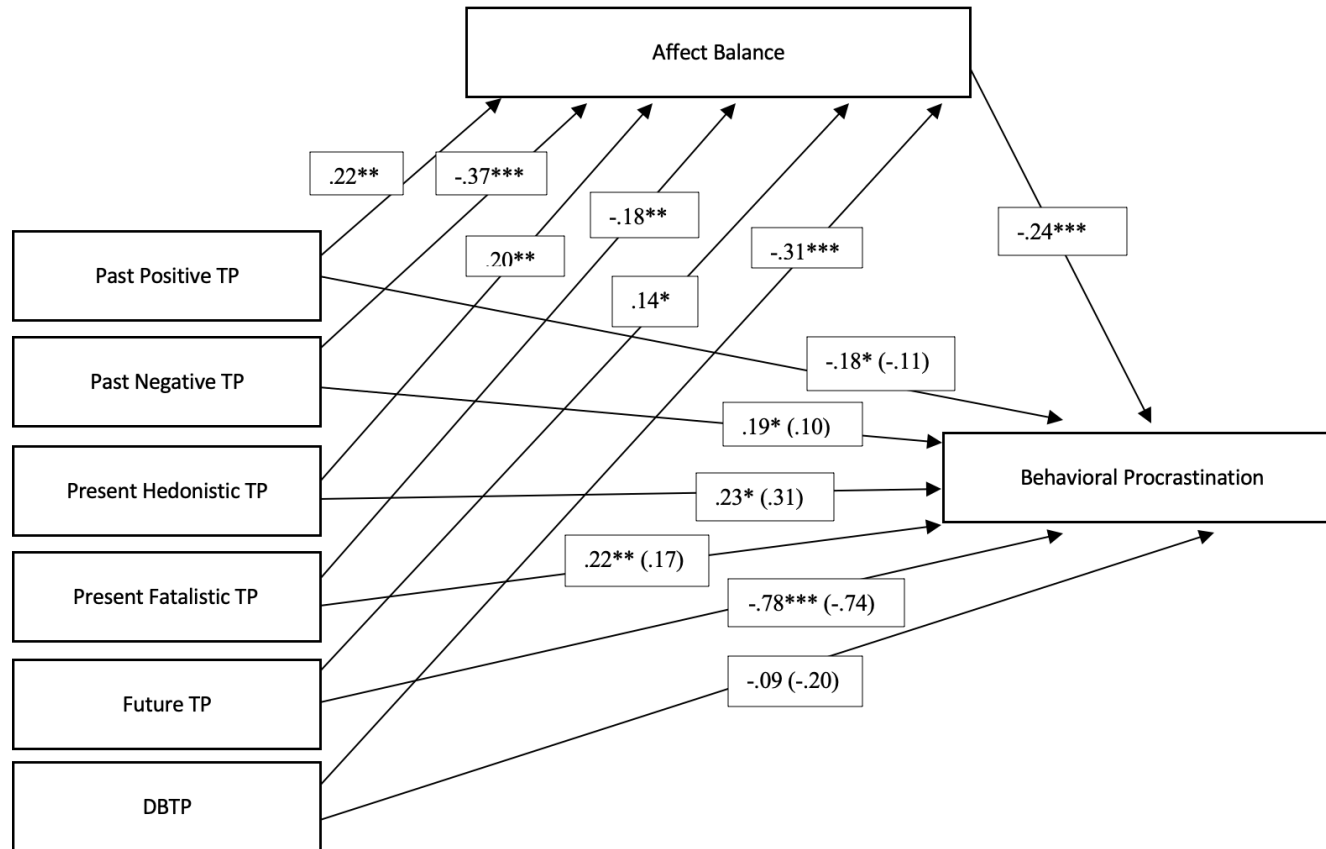
Apart from positive and negative affect, the role of affect balance as a single mediator in the relationship between Time Perspective and Procrastination was examined. The same procedure was repeated for the second mediation model, affect balance (BA) was entered as a single mediator, while TP aspects (PP, PN, PH, PF, F

and DBTP) were analyzed as independent variable (predictor) to see its relationship with procrastination (outcome). The bootstrapping method used biased corrected confidence estimates and obtained a 95% confidence interval of the indirect effect with 5000 bootstrap resamples. Except Future TP, the indirect effects of all the time perspective measures on decisional procrastination were significant via affect balance.

Respectively, confidence intervals of the indirect effect of; $ab = -0.13$ with 95% CI $[-0.25, -0.03]$, $ab = 0.15$ with 95% CI $[0.07, 0.25]$, $ab = -0.16$ with 95% CI $[-0.28, -0.04]$, $ab = 0.09$ with 95 % CI $[0.01, 0.20]$, and $ab = 0.17$ with 95% CI $[0.08, 0.28]$ for PP, PN, PH, PF and DBTP. These findings suggest that affect balance mediates the association between time perspective and decisional procrastination.

In addition, the above mediation analyses were conducted by using behavioral procrastination as a DV. Indirect effects were found significant for Past Negative, Present Hedonistic and DBTP. $ab = 0.08$ with 95% CI $[0.02, 0.15]$, $ab = -0.08$ with 95% CI $[-0.16, 0.02]$, and $ab = 0.11$ with 95% CI $[0.04, 0.19]$ of indirect effects for PN, PH, and DBTP, respectively.

Figure 3.1.2. Summary of the Paths for the Effect of Time Perspectives on Behavioral Procrastination via Affect Balance.



Note. Coefficient in brackets is the total effect.

These findings suggest that affect balance has a significant mediator effect for the relationship between time perspective and procrastination. The results of the analyses are presented in Table 3.1.2.

Table 3.1.2. Effects of Time Perspective on Procrastination via Affect Balance

Dependent Variable	Independent Variable	Indirect			Direct			Total		
		<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>
Decisional Procrastination	Past Positive	-0.13	0.05	-0.25 to -0.03	-0.10	0.11	-0.32 to 0.12	-0.24	0.11	-0.45 to -0.02
	Past Negative	0.15	0.04	0.07 to 0.25	0.34	0.11	0.12 to 0.55	0.49	0.09	0.31 to 0.68
	Present Hedonistic	-0.16	0.06	-0.28 to -0.04	0.27	0.13	0.01 to 0.52	0.11	0.13	-0.16 to 0.37
	Present Fatalistic	0.09	0.04	0.01 to 0.20	0.32	0.11	0.08 to 0.54	0.41	0.12	0.17 to 0.65
	Future	-0.09	0.05	-0.21 to 0.00	-0.50	0.13	-0.76 to -0.24	-0.60	0.13	-0.87 to -0.32
	DBTP	0.17	0.05	0.08 to 0.28	0.11	0.12	-0.12 to 0.37	0.29	0.12	0.05 to 0.54
Behavioral Procrastination	Past Positive	-0.06	0.03	-0.13 to -0.01	-0.11	0.09	-0.29 to 0.07	-0.17	0.09	-0.35 to 0.00
	Past Negative	0.08	0.03	0.02 to 0.15	0.10	0.07	-0.04 to 0.26	0.19	0.07	0.05 to 0.33
	Present Hedonistic	-0.08	0.03	-0.16 to 0.02	0.31	0.08	0.13 to 0.48	0.22	0.09	0.04 to 0.40
	Present Fatalistic	0.04	0.02	0.00 to 0.10	0.17	0.10	-0.02 to 0.37	0.21	0.10	0.01 to 0.41
	Future	-0.03	0.02	-0.09 to 0.00	-0.74	0.08	-0.91 to -0.58	-0.78	0.08	-0.95 to -0.61
	DBTP	0.11	0.03	0.04 to 0.19	-0.20	0.08	-0.36 to -0.02	-0.08	0.08	-0.25 to 0.08

Note. *N* = 222. *CI* = bias-corrected bootstrapped confidence intervals, DBTP = deviation from balanced perspective. Statistically significant effects are printed in bold type.

3.1.3. Fear of Failure and Sensation Seeking as Mediator

One of the aims of the current study was to explore potential mediators other than Time Perspectives (TP). For this reason, 95% bias-corrected bootstrap confidence interval, following standard conventions, to evaluate whether fear of failure and sensation seeking is a mediating effect in the relationship between procrastination and time perspective.

Decisional procrastination was entered as an dependent variable (outcome), time perspective was entered as independent variable (predictor) in the mediation model, and fear of failure had a significant effect as a mediating role. Considering six TP aspects, indirect effects via fear of failure were significant for PN, PF, and DBTP's relations with decisional procrastination. The confidence intervals of the indirect effects of TP; $ab=0.12$ with 95% CI [0.04, 0.23], $ab=0.08$ with 95% CI [0.01, 0.17], and $ab=0.14$ with 95% CI [0.06, 0.25], respectively for PN, PF, and DBTP. In addition, via seeking sensation (mediator) for present hedonistic TP was also significant. The confidence intervals of the indirect effects of TP for PH; $ab=0.21$ with 95% CI [0.06, 0.39] The results of the analyses are presented in Table 3.1.3a. These results suggested that fear of failure mediates the relationship between PN, PF and DBTP with decisional procrastination, and also seeking sensation mediates the relationship between PH and DP.

The effects of time perspective (IV) on behavioral procrastination (DV) via fear of failure & sensations seeking were analyzed; only DBTP via sensation seeking was found to have a significant effect. The confidence interval of the

indirect effects of DBTP; $ab = 0.07$ with 95% CI [0.02, 0.16]. This finding suggested deviation from the balanced time perspective (DBTP) had an indirect effect on behavioral procrastination with sensation seeking as a mediator. (See Table 3.1.3b.)

Table 3.1.3a. *Effects of Time Perspective on Decisional Procrastination via Fear of Failure and Sensation Seeking*

Independent Variable	Mediator	Indirect			Direct			Total		
		<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>
Past Positive	Fear of Failure	-0.02	0.03	-0.10 to 0.04	-0.20	0.10	-0.41 to 0.01	-0.24	0.11	-0.02 to -0.14
	Sensation Seeking	-0.00	0.01	-0.05 to 0.02						
Past Negative	Fear of Failure	0.12	0.04	0.04 to 0.23	0.34	0.09	0.15 to 0.53	0.49	0.08	0.32 to 0.67
	Sensation Seeking	0.02	0.01	-0.00 to 0.06						
Present Hedonistic	Fear of Failure	0.07	0.05	-0.01 to 0.21	-0.18	0.14	-0.46 to 0.10	0.11	0.13	-0.14 to 0.37
	Sensation Seeking	0.21	0.08	0.06 to 0.39						
Present Fatalistic	Fear of Failure	0.08	0.03	0.01 to 0.17	0.32	0.11	0.07 to 0.53	0.41	0.10	0.21 to 0.62
	Sensation Seeking	0.01	0.01	-0.00 to 0.06						
Future	Fear of Failure	0.02	0.05	-0.07 to 0.11	-0.58	0.12	-0.82 to -0.34	-0.60	0.12	-0.85 to -0.35
	Sensation Seeking	-0.03	0.02	-0.10 to 0.00						
DBTP	Fear of Failure	0.14	0.04	0.06 to 0.25	0.19	0.12	-0.04 to 0.43	0.29	0.10	0.08 to 0.50
	Sensation Seeking	-0.03	0.02	-0.10 to 0.00						

Note. $N = 222$. *CI* = bias-corrected bootstrapped confidence intervals, DBTP = deviation from balanced perspective. Statistically significant effects are printed in bold type.

Table 3.1.3b. Effects of Time Perspective on Behavioral Procrastination via Fear of Failure and Sensation Seeking

Independent Variable	Mediator	Indirect			Direct			Total		
		<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>	<i>B</i>	<i>SE</i>	<i>95% CI</i>
Past Positive	Fear of Failure	-0.00	0.01	-0.05 to 0.01	-0.16	0.09	-0.34 to 0.01	-0.17	0.08	-0.35 to -0.13
	Sensation Seeking	-0.00	0.01	-0.03 to 0.01						
Past Negative	Fear of Failure	0.04	0.04	-0.03 to 0.13	0.13	0.08	-0.03 to 0.28	0.19	0.07	0.04 to 0.33
	Sensation Seeking	0.01	0.01	-0.00 to 0.05						
Present Hedonistic	Fear of Failure	0.07	0.07	-0.06 to 0.21	0.12	0.11	-0.11 to 0.35	0.22	0.10	0.02 to 0.43
	Sensation Seeking	0.02	0.02	-0.00 to 0.10						
Present Fatalistic	Fear of Failure	0.01	0.01	-0.00 to 0.05	0.18	0.10	-0.02 to 0.37	0.21	0.08	0.05 to 0.38
	Sensation Seeking	0.02	0.02	0.00 to 0.08						
Future	Fear of Failure	-0.00	0.02	-0.05 to 0.02	-0.78	0.08	-0.95 to -0.61	-0.78	0.09	-0.96 to -0.60
	Sensation Seeking	0.00	0.02	-0.03 to 0.06						
DBTP	Fear of Failure	-0.01	0.01	-0.06 to 0.00	-0.15	0.09	-0.32 to 0.04	-0.08	0.08	-0.25 to 0.07
	Sensation Seeking	0.07	0.03	0.02 to 0.16						

Note. *N* = 222. *CI* = bias-corrected bootstrapped confidence intervals, DBTP = deviation from balanced perspective. Statistically significant effects are printed in bold type.

3.1.4. Affect as Moderator

Moderation analyses were conducted to measure the effects of all types of affect measures (PA, NA, BA) on the relationship between time perspective (predictor) and procrastination (outcome). Overall, a total of 36 moderation analyses were performed (Table 3.1.4a.). The results suggested that negative affect was the only significant moderator in the effect of present hedonistic TP on behavioral procrastination. The confidence intervals of the moderator effects of NA; $\beta = 0.26$ with 95% CI [0.04, 0.42] for the relationship between present hedonistic TP and behavioral procrastination. To understand the moderator effect of negative affect, slope analysis was also examined. (See figure 3.1.4a.)

Figure 3.1.4a. Moderation effect of negative affect on the relationship between present hedonistic TP and behavioral procrastination.

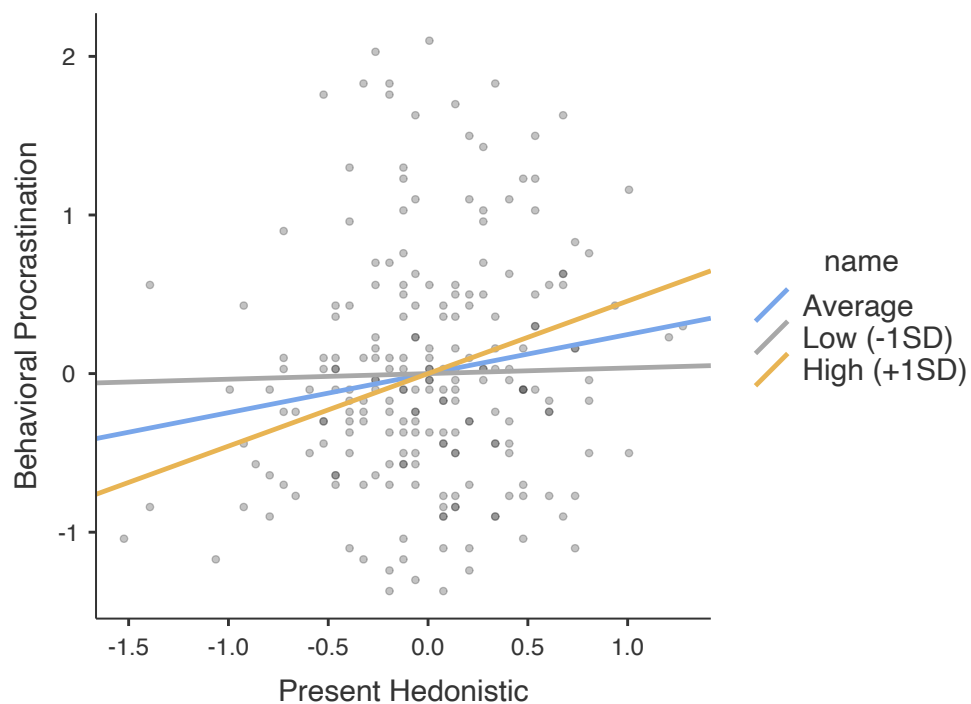


Table 3.1.4a. *The results of analysis testing the moderator effects of Affect on the relationship between Time Perspective and Behavioral Procrastination*

Independent Variable	Moderator	Moderation Effects		
		<i>B</i>	<i>SE</i>	<i>95% CI</i>
Past Positive TP	Positive Affect	-0.02	0.10	-0.21 to 0.21
	Negative Affect	-0.00	0.10	-0.20 to 0.19
	Affect balance	-0.01	0.11	-0.20 to 0.22
Past Negative TP	Positive Affect	0.09	0.08	-0.07 to 0.26
	Negative Affect	-0.08	0.10	-0.28 to 0.12
	Affect balance	0.12	0.10	-0.07 to 0.32
Present Hedonistic TP	Positive Affect	-0.01	0.10	-.25 to 0.17
	Negative Affect	0.26	0.09	0.04 to 0.42
	Affect balance	-0.19	0.11	-0.42 to 0.05
Present Fatalistic TP	Positive Affect	-0.02	0.10	-0.25 to 0.18
	Negative Affect	-0.05	0.12	-0.29 to 0.18
	Affect balance	0.00	0.12	-0.22 to 0.24
Future TP	Positive Affect	0.10	0.10	-0.08 to 0.33
	Negative Affect	-0.12	0.08	-0.30 to 0.03
	Affect balance	0.14	0.09	-0.03 to 0.34
DBTP	Positive Affect	0.09	0.11	-0.13 to 0.30
	Negative Affect	-0.10	0.11	-0.30 to 0.13
	Affect balance	0.12	0.11	-0.12 to 0.33

Note. *N* = 222. *CI* = bias-corrected bootstrapped confidence intervals, DBTP = deviation from balanced perspective.

Statistically significant effects are printed in bold type.

On the other hand, in a relation with decisional procrastination and time perspective, positive affect was the only significant moderator concerning decisional procrastination for DBTP (See Table 3.1.4b.). The confidence intervals of the moderator effects of PA; $\beta = 0.32$ with 95% CI [0.01, 0.60]

Negative affect was examined as a moderator of the relation between present hedonistic TP and behavioral procrastination. Present hedonistic TP and negative affect were entered in the first step of the regression analysis. In the second step of the regression analysis, the interaction term between negative affect and present hedonistic TP was entered, and it explained a significant increase in variance in behavioral procrastination, $\Delta R^2 = .09$, $F = 7.44$, $p < .001$. Thus, negative affect was a significant moderator of the relationship between present hedonistic TP and behavioral procrastination.

In a similar model, positive affect was entered as a moderator of the relation between DBTP and decisional procrastination. The interaction term between positive affect and DBTP was entered in the second step of the regression analysis. In the second step of the regression analysis and it explained a significant increase in variance in decisional procrastination, $\Delta R^2 = .14$, $F = 12.11$, $p < .001$. Thus, positive affect was a significant moderator of the relationship between DBTP and decisional procrastination.

Figure 3.1.4b. Moderation effect of positive affect on the relationship between DBTP and decisional procrastination.

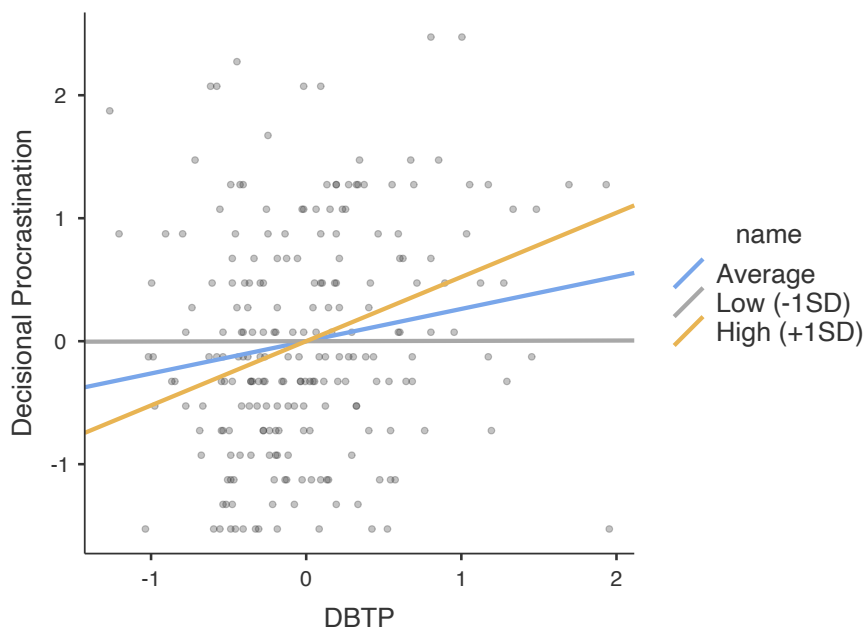


Table 3.1.4b. *The results of analysis testing the moderator effects of Positive and Negative Affect on the relationship between Time Perspective and Decisional Procrastination*

Independent Variable	Moderator	Moderation Effect		
		<i>B</i>	<i>SE</i>	<i>95% CI</i>
Past Positive TP	Positive Affect	-0.07	0.12	-0.28 to 0.19
	Negative Affect	0.11	0.11	-0.14 to 0.31
	Affect balance	-0.10	0.12	-0.31 to 0.18
Past Negative TP	Positive Affect	0.15	0.12	-0.10 to 0.38
	Negative Affect	-0.07	0.10	-0.28 to 0.14
	Affect balance	0.15	0.12	-0.09 to 0.40
Present Hedonistic TP	Positive Affect	0.06	0.20	-0.35 to 0.45
	Negative Affect	0.12	0.13	-0.12 to 0.41
	Affect balance	0.00	0.17	-0.34 to 0.34
Present Fatalistic TP	Positive Affect	0.08	0.13	-0.17 to 0.33
	Negative Affect	-0.00	0.12	-0.23 to 0.23
	Affect balance	0.05	0.12	-0.18 to 0.32
Future TP	Positive Affect	0.06	0.13	-0.20 to 0.34
	Negative Affect	-0.07	0.13	-0.36 to 0.19
	Affect balance	0.10	0.15	-0.20 to 0.39
DBTP TP	Positive Affect	0.32	0.15	0.01 to 0.60
	Negative Affect	-0.14	0.12	-0.36 to 0.11
	Affect balance	0.28	0.14	-0.00 to 0.55

Note. $N = 222$. *CI* = bias-corrected bootstrapped confidence intervals, DBTP = deviation from balanced perspective.

Statistically significant effects are printed in bold type.

3.1.5. Fear of Failure and Sensation Seeking as Moderator

In order to understand the relationship between procrastination and time perspective in a more exploratory way, the moderator effects of fear of failure and sensation seeking were also conducted. Similar to the model in which the moderation

effect of affect is measured, each time perspective types were entered as predictors, and procrastination (behavioral and decisional) was analyzed separately as a dependent variable. No statistically significant moderator role was observed as a result of a total of 24 analyses. All the results are in Table 3.1.5. Thus, for the current study, fear of failure and sensation seeking did not have moderator roles in the relationship between procrastination and time perspective.

Table 3.1.5. *The results of analysis testing the moderator effects of Fear of Failure and Sensation Seeking on the relationship between Time Perspective and Behavioral Procrastination*

Independent Variable	Moderator	Moderation Effect		
		<i>B</i>	<i>SE</i>	<i>95% CI</i>
Past Positive TP	Fear of Failure	0.026	0.12	-0.24 to 0.25
	Sensation Seeking	-0.00	0.16	-0.26 to 0.36
Past Negative TP	Fear of Failure	-0.03	0.10	-0.22 to 0.16
	Sensation Seeking	0.15	0.10	-0.04 to 0.36
Present Hedonistic TP	Fear of Failure	0.02	0.12	-0.24 to 0.25
	Sensation Seeking	-0.08	0.13	-0.33 to 0.19
Present Fatalistic TP	Fear of Failure	0.03	0.13	-0.23 to 0.28
	Sensation Seeking	0.19	0.17	-0.14 to 0.52
Future TP	Fear of Failure	-0.00	0.09	-0.18 to 0.20
	Sensation Seeking	-0.07	0.11	-0.29 to 0.15
DBTP	Fear of Failure	-0.03	0.10	-0.22 to 0.19
	Sensation Seeking	0.17	0.11	-0.06 to 0.39

Note. *N* = 222. *CI* = bias-corrected bootstrapped confidence intervals, DBTP = deviation from balanced perspective. Statistically significant effects are printed in bold type.

CHAPTER 4

DISCUSSION

4.1. General Discussion

In recent years, procrastination has received more attention in the literature, but it is still not fully understood why it has emerged. Many studies have revealed a significant relationship between procrastination and time perspective, which aids in understanding. The effect of subjective well-being and affect as a mediator on this relationship have also been demonstrated in previous studies (Sirois, 2014). However, we believe that these studies were not comprehensive due to lack of different dimensions of affect, time perspective and procrastination.

The primary goal of this study was to examine the role of affect between procrastination and time perspective to understand these differences as much as possible and to see the effect of all of them on each other. To extent previous studies, using all time perspective dimensions (PP, PN, PH, PF, F, and DBTP) as predictors, measuring behavioral and decisional procrastination scores separately as dependent variables for procrastination, and using positive & negative affect as multiple mediators and entering balance affect as a single mediator to fully understand the relationship between procrastination and time perspective. To our knowledge, conducting affect balance as a single mediator for the effect of time perspective on procrastination (both behavioral and decisional) has been investigated for the first time in the literature.

When evaluating the role of affect as a mediator in the relationship between procrastination and time perspective, procrastination is entered as an outcome and time perspective as a causal factor contrarily to Sirois (2014)'s study that she conducted that procrastination caused time perspective. The current study aimed to contribute a new perspective to the literature. Furthermore, the role of affect as a moderator was examined to understand its role in this association better. Previous research (Ferrari,

1992) has identified arousal and avoidant procrastination as factors that contribute to reasons for procrastination trait. It is suggested that the internal dynamics underlying these two concepts are sensation seeking and failure fear. It has been discovered that some people procrastinate to achieve gratification, while others procrastinate to avoid negative feelings. The secondary purpose of the study was to determine whether sensation seeking and fear of failure play any role in the relationship between procrastination and time perspective. It was also examined whether they played the role of moderator in order to be more exploratory. To the best of our knowledge, this current study will be the first in some ways in the literature: a) investigating the relationship between all of Time Perspective orientations and two different Procrastination measurements separately, b) taking Procrastination as the outcome and Time Perspective as causal while examining the role of Affect in this relationship, c) using all types of Affect (PA, NA, BA) to understand this relation d) Investigating the role of sensation seeking and fear of failure in the relationship between procrastination and time perspective, and e) It was conducted with a non-academic Turkish sample of adults ranging in age from 18 to 75.

The findings from the current study suggest that negative affect, as well as affect balance have mediator role in the relationship between procrastination and time perspective. As other factors for procrastination, sensation seeking and fear of failure are positively correlated with both decisional and behavioral procrastination. In addition, the fear of failure can act as a mediating role in the relationship between decisional procrastination and past time orientations (PP, PN) and the deviation from the balanced time perspective (DBTP), according to the present study.

4.2. The Role of Affect in the Relationship Between Procrastination and Time Perspective

As expected, positive affect (PA) and affect balance (BA) had a statistically significant negative correlation with both behavioral and decisional procrastination.

This result tells us that when a person has high levels of positive feelings or have more balanced feelings, his/her procrastination level tends to decrease. In contrast, as expected there was a positive correlation between negative affect and procrastination. These findings supported Lay's (1992) results that trait procrastination correlates with negative affect. In one study, Rothblum et al. (1986) suggested that people having anxiety-related symptoms, and negative feelings are more likely to procrastinate. Steel (2007) also supported that procrastination is related to stress, anxiety, and negative affect, and it causes self-regulatory failure. Especially when negative affect levels increase, we see that decisional procrastination increases significantly. When the person has a more negative feelings, the procrastination tendency increases due to challenges to cope with hard and negative feelings and choose to procrastinate decisions. It can be assumed that due to intensity of the negative feelings, making decisions and focusing on future might be getting harder. This finding also provided support for Fernie and colleagues' (2015) study on negative affect was significantly correlated with decisional procrastination.

The results indicated that all time perspectives (PP, PN, PH, PF and DBTP) were correlated with all dimension of affect with only exception of the relationship between negative affect and future TP. When the ZTPI scale is examined, it is discovered that the subscales have different psychological constructs. While the past positive and past negative strongly reflect affect, other time perspective elements has not include affect (Akirmak, 2019). In addition, affect is not considered when measuring future time perspective dimensions. This could be an assumption as to why the correlation between future and affect is not strong. As a result, we can conclude that there is a strong link between past and present perspectives, affect and procrastination.

These results raise the question of whether affect mediates the relationship between these two variables. When affect was entered into our model, the correlation between procrastination and time perspective became significantly more robust. More specifically, the relationship between decisional procrastination and time perspective

is significant when affect balance is a factor in all orientations except future TP. Affect balance, which is believed to be related for having healthier well-being (Kolanowski et al., 2014), plays a vital role in whether or not the person procrastinates at this point. This theory makes us assume that how much a person has a balance of positive and negative feelings has an effect on the increase or decrease in the tendency to procrastinate decisions. The current study indicated that while there was no direct relationship between decisional procrastination and past positive TP, there would be a significant negative correlation between DP and PP when affect balance is entered in this relationship. A more balanced mood emerges as a result of having a more positive experience in the past, while decisional procrastination decreases and the person spends less time making decisions. According to Stolarski et al. (2011), having past positive time perspective is an effective and 'emotionally intelligent' mood management strategy: remembering joyful memories is one of the most effective ways to regulate negative moods (Josephson, 1996). Interestingly, while affect balance had a mediator role, DBTP had an indirect effect on decisional procrastination. According to this finding, the likelihood of a person with deviations in time perspective orientations to make decisional procrastination is likely but not certain, while the tendency to postpone these decisions increases in the case of a more balanced affect. These results also suggest the question that affect balance may whether change the direction in this relationship.

On the other hand, affect balance acts as a mediator in three relationships between time perspective aspects and behavioral procrastination. According to the current study, the relationship between PN, PH & DBTP, and behavioral procrastination becomes more robust when the affect balance is a mediator. For example, someone with negative past experiences will procrastinate less when they have a more balanced feelings. So, only negative past experience is not enough to explain the procrastination tendencies of the person, but if having more balanced positive and negative feelings, then we see that procrastination decreases. Stolarski (2014) stated that past negative TP was the most major factor for life satisfaction, and

also present hedonistic TP was a predictor for feeling satisfied. However, having negative past experiences could be a reason for feeling disappointed in the present even though having a satisfactory life. When a person has a more affect balance, it appears that delaying less of the own essential responsibilities for taking action.

Considering a two-dimensional structure as positive and negative affect, it turned out that they have multiple mediators in the relationship between decisional procrastination and time perspective. The purpose of looking at it this way is to understand what type of affect the time perspective has indirect effect on procrastination. Bradburn's (1969) affect balance theory states that the absence of negative affect does not imply the presence of positive affect. This concept has received support over the years due to the frequently observed correlation between positive and negative affect and various variables. The results showed that especially negative affect might mediate the relationship between decisional procrastination and time perspective. For example, when the effect of positive and negative affect is considered together, it is not possible to explain the relation of a person with a positive past tense perspective with decisional procrastination. However, it suggested that time perspective has indirect effect on decisional procrastination through the increase of negative affect. In previous studies, a mediation effect was considered due to the lower positive affect rather than negative affect (Sirois, 2014). In this respect, the result obtained in this study brings a different suggestions compared to previous studies. This difference can be considered as a difference in culture since it is done with Turkish sample. It can be argued that negative affect has a greater effect on decision making or taking action in Turkish society compared to other samples. Most of the studies with Turkish samples have been made by considering a more educational perspective through academic procrastination. In particular, exploring academic procrastination (Özer, 2009), effects on college student's life satisfactory (Özer, 2011), academic life satisfaction (Balkıs, 2013) of high school and university students are some examples of the most studied subjects with the Turkish sample. While academic procrastination is an extremely popular research topic, procrastination studies on adults with Turkish

samples are limited. Among these, a study investigating the relationship between procrastination and well-being through the mediator role of self esteem is also meaningful for the current study. However, in this study, Duru & Balkıs (2017) considered procrastination not as an outcome but as a predictor. On the other hand, Özer (2020) conducted a similar study but with a change on a model in which procrastination was entered as an outcome, and suggested that self-esteem mediates the association between procrastination and self-control. Compared to previous study, the current study considered affect as a mediator and found a significant result. However, the relationship between affect's temporal perspective and procrastination has not been investigated in any study conducted with Turkish participants before the current study. As a result, the current study's findings can be regarded a first. In this respect, the results we found are one of the first in terms of procrastination studies with Turkish adult samples. The increase in negative affect in the study with a Turkish sample mediates the relationship between time perspective and decisional Procrastination. We know that procrastination is associated with demographic characteristics in non-English-speaking adult samples (Diaz-Morales, Ferrari, Argumedo, & Diaz, 2006) and is common in the United Kingdom, Australia, Spain, Peru, and Venezuela (Ferrari, Diaz-Morales, O'Callaghan, Diaz, & Argumedo, 2007); In addition, it turns out that someone with past experiences delays their decisions much more when their current affect is also negative. At this point, past negative had indirect effect on decisional procrastination via positive affect. While there was no correlation between DBTP and decisional procrastination, decisional procrastination was found to increase significantly when negative affect joined this relationship. If a person is unstable between time orientations, this increases negative affect, suggesting that the person is delaying making decisions.

Moderation analysis was also performed to further explore the effect of the effect on this relationship. The purpose of this study is whether affect as a moderator, influences the level and direction of the relationship between procrastination and time

perspective. After many moderation analyses made in this direction, two results stated as significant. According to the results, while the present hedonistic time perspective predicts procrastination, negative affect may moderate this relationship. In addition, as the level of positive affect in the relationship between DBTP and decisional procrastination, the effect of DBTP on decisional procrastination increases. In other words, if a person has an unstable time perspective and tends to procrastinate, the effect of the relationship between them seems to depend on a positive affect. Although the results of these two moderations analyses are significant, they may not represent a definite result since they are rarely significant among many analyses and their sizes are not very large.

4.3. Relationship between Procrastination, Time Perspective, and Other Factors

Among the factors contributing to procrastination, it was discovered that sensation seeking acts as an arousal factor and fear of failure acts as an avoidant factor. It was believed that the dangerous state of seeking pleasure in oneself, deferring something until the deadline, and performing it at the last moment triggered the postponement, depending on the amount of adrenaline felt. On the other hand, fear of failure, which results in an avoidance state, has been shown to result in a delay in order to escape from the negative feeling caused by the individual's low self-esteem, hopelessness, sadness, and disbelief. Stolarski (2016) stated that time perspective was a strong predictor for arousal. His regression model (TP only) indicated that present hedonism and future positive orientations are energetic, whereas past negative TP and future negative orientations are draining for a person. According to Thayer (1997), energy prepares for a goal-directed action, and tension & fear represents preparedness for a threat. These theories may relate with sensation seeking as arousal and fear of failure as avoidant mechanisms. Reduced motivation and energy levels will result from a perceived lack of preparedness for future threats. The results of the current study conducted in this direction also support this. In particular, both sensation seeking and

fear of failure were found to be significantly associated with decisional procrastination. Although not as significant as procrastination for decision making, a relationship can also be mentioned between behavioral procrastination and sensation seeking and fear of failure.

Previous studies have found relationships between sensation seeking and time perspectives. Time perspective comes first among the elements that reveal sensation seeking (Boyd & Zimbardo, 1997; Lemarie et al., 2019). Fear of failure is also related to the perspective of past experience. People are avoidant due to a fear of failure, are assumed to be more fatalistic to avoid current discomfort and cognitive load, and care less about future decisions because they have a limited feeling of control over their own life. (Ferrari, 1992) At this point, the results we found in the current study also support these statements, and statistically significant relationships were found between sensation seeking and present hedonistic and future TPs. Fear of failure, as expected, has a strong correlation with past negative and DBTP.

In this direction, to understand the relationship between these three variables more comprehensively, the effect of sensation seeking and fear of failure on this relationship in the mediator role was analyzed. According to the results, it was found that four of the six time perspective measurements were able to mediate these factors in their relationship with decisional procrastination. It was found that Fear of Failure increased this effect in the relationship where Past Negative TP affected DP, and sensation seeking mediated the relationship between Present Hedonistic TP and DP. While there is no direct relationship between DBTP and DP, fear of failure mediates the effect of DBTP on DP was significantly at this point. Present fatalistic TP had indirect effect on decisional procrastination via fear of failure. Considering all these, it is suggested that especially fear of failure mediates the relationship between time perspective and decisional procrastination. However, the same effect cannot be mentioned supported for on behavioral procrastination. Considering that sensation seeking and fear of failure are more mental and internal dynamics, these elements do not have a significant effect on the time perspective relationship with behavioral

procrastination. Only the mediator effect of fear of failure can be mentioned in the relationship between DBTP and behavioral procrastination. Considering all the results together, fear of failure and sensation seeking have an active role in the relationship between time perspective and decisional procrastination. When the levels of fear of failure and sensation seeking increase, the tendency of the person to delay their decisions according to time perspectives increases.

In order to explore these relationships, sensation seeking and fear of failure were also included in the analysis as moderators. However, in this study, neither fear of failure nor sensation seeking was found to influence the relationship between procrastination and time perspective as a moderator.

4.4. Limitations and Future Directions

Regarding the current study's limitations, it should be noted that it was a cross-sectional study that used a convenience sample of participants. Due to the fact that it is more likely to be a more homogeneous sample, it may not accurately represent the entire population. A cross-sectional study measures only one variable at a specific time, whereas a longitudinal study measures multiple variables over time. This study may not be perceived as a fully causal investigation as a result of this. Along with these, scales based on self-reports were used to gather information. Although self-report scales can provide valuable information about one's self-perception, they can also have significant limitations in some situations. When responding to self-report questionnaires, participants are prone to providing answers that are socially preferable to others. It is possible that this will not provide certainty about the causality of the results.

The comprehensive effect of affect was investigated in this study, which was carried out in order to understand better the relationship between procrastination and the perspective on time taken into consideration. However, although studies similar to this one have been conducted in the past, this is the first study to include all time

perspectives, to use two different procrastination measures, and to use both positive and negative affect simultaneously, as well as both positive and negative affect individually. This study may therefore need to be regarded as a pioneering effort, and the relationship between the two may need to be explored in greater depth in future studies. Due to the fact that this is the first study to use a Turkish sample, it is important to consider cultural differences. In future studies, the difference between these variables can be determined by including culture as a controllable variable.

Furthermore, the results of the moderation analyses were not as statistically significant as had been predicted. Because of this, it may be necessary to explain both affect and sensation seeking, as well as fear of failure, in the relationship between procrastination and time perspective in a variety of ways. In addition, Future TP can be entered in models as Positive TP and Negative TP to understand the association between Future TP and behavioral & decisional procrastination.

More comprehensive studies, particularly on the mediator effect of affect balance, can be conducted in the future as a result of the novel findings of this study. In addition, two significant moderation analysis can be lead for future research to explore the relation between affect, time perspective and procrastination.

The relationship between procrastination and time perspective was attempted to be understood in this study using affect balance, and it was discovered that affect balance had a significant effect on this relationship. Affect regulation, on the other hand, is the attempt to change or control one's mood or emotional state in order to maximize pleasurable experiences while minimizing negative ones. People use a variety of indirect affect management techniques because they cannot usually change their emotions simply by deciding to feel differently. From this point of view, the relationship of affect regulation in this equation can be studied in future studies. To the best of my knowledge, there is no study on this subject in the literature yet.

For exploratory purposes, a significant correlation between age and procrastination was found due to the sample's wide range. According to the results of the correlation analysis, it was found that the procrastination scores decreased as the

age of the participants increased. As a result, age can be studied as a controlled variable in future studies. Age was also investigated as a moderator in models for exploratory purposes, but no significant results were found.

4.5. Conclusion and Clinical Implications

The findings of the current study extend Sirois' (2014) findings by showing that negative affect and affect balance besides positive affect, is correlated with procrastination and time perspective. In contrast his finding, present study showed that time perspective has a predictor factor for procrastination. Furthermore, the mediation analysis showed that the associations of decisional procrastination and past positive TP, past negative TP and DBTP mediated by negative affect. Surprisingly, past time orientations and DBTP have indirect effect on procrastination via negative affect in Turkish sample. However, Sirois (2014) found results on the mediator effect of positive affect while conducting this relationship. The results of present study may be an important finding in terms of suggesting cultural factors. In addition, affect balance have a significant mediator role in the relationship between decisional procrastination and PP, PN, PH, PF and DBTP. Only future TP has a direct effect on decisional procrastination. Furthermore, affect balance mediating the relationship between behavioral procrastination and PN, PH and DPTB. However, the current results also indicated that PA moderating the association between DBTP and decisional procrastination, and NA moderating the relationship between PH and behavioral procrastination, moderation findings are for exploration and can be lead for further studies.

The other results of the present study supported Ferrari's (1992) study that fear of failure and sensation seeking is correlated with procrastination. To extend Ferrari's (1992) findings, both fear of failure and sensation seeking was highly statistically positive correlated with specifically decisional procrastination. Furthermore, mediation analysis showed that fear of failure was mediating the relationship between PN, PF,

DBTP (predictor) and decisional procrastination (outcome), and sensation seeking was mediating the relationship between PH and decisional procrastination in the same model. On behavioral procrastination, only sensation seeking had a moderator role with DBTP as IV.

Regarding present study, the findings suggest that negative affect and affect balance are significant variables for the relationship between procrastination and time perspective. Moreover, negative and affect balance have mediator role in this association. In addition, fear of failure can be a mediating factor for the relationship between procrastination and time perspective.

The current study's findings, which differ from those found in the literature in terms of procrastination, suggest that procrastination is not only an act due to low positive affect and future orientation, as previously thought. Procrastination is a more complex term in need of exploring about predictors. The present study suggests that negative affect and also affect balance can be important factors for procrastination with a relationship with time perspective. Furthermore, fear of failure can be a factor for avoidant dynamics of person to procrastinate more. The cultural factor also discussed in the discussion section is one that should be investigated further. What are the reasons for this, why is this relationship thought to be associated with positive affect in Western societies, and why negativity and deviation from affect balance are more prevalent in Turkish society? A study with a more homogeneous sample may be more exploratory for these questions.

In terms of clinical practice, the results of this study could be significant findings for clinicians and individuals who work on mental health field. Psychotherapies are still one of the most postponed needs for people. If procrastination behavior can be better understood which affects internal dynamics, may lead to a decrease in resistance in psychotherapeutic relationships and an increase in therapeutic gains. The time orientation and general affect that cause procrastination, in particular for chronic procrastinators, can play an important role in determining goals and planning in therapy work. The time orientation and affect of chronic procrastinators

can be measured using questionnaires that are being developed, and therapy plans can be devised accordingly. In the case of someone who has both negative affect and a negative past tense orientation, the focus of the therapy process should be on the past traumatic events. A more in-depth analysis of past negative feelings can aid in the resolution of both the current negative affect and the resulting procrastination behavior. These findings can help both professionals and clients by providing guidance and improving the functionality of clinical trials. The findings about the role of affect balance may also aid in understanding the relationship between extreme feelings (e.g., bipolarity) and clinical procrastination, as well as time perspectives. Since this study is a self-report study, a longitudinal study based on more clinical observations in future studies may help to understand the relationship between affect, procrastination and time perspective.

Given that affect balance is negatively associated to procrastination, several types of behavioral treatment may have an influence on procrastination as a preventative and problem-solving strategy. Because the time perspective is a cognitive process-based approach, therapies that focus on balancing a person's time perspective and affect may be effective in treating chronic procrastination.

Completing and terminating something symbolizes a detachment from that thinking and process, as well as the process of separation. When people procrastinate things, they also procrastinate leaving what is in their minds and fantasies. From a more analytical standpoint, this situation can be linked to separation anxiety. Separation anxiety, which can obstruct transitions between time perspectives, and the task at hand may make it difficult to let go of the thought. For this reason, experiences of separation and inability to leave at an early age should be studied in therapies. In addition, processing the separation process, which is a fundamental step in reaching independent adulthood, can reduce procrastination tendencies and provide transitions to complete things.

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APPENDICES

Appendix A

Informed Consent Form

BİLGİLENDİRİLMİŞ ONAM FORMU

Sayın Katılımcı,

Bu araştırmanın amacı kişilerdeki erteleme eğiliminin zaman perspektifiyle ilişkisini ve kişinin kendine dair deneyimlerinin bu ilişki üzerindeki rolünü anlamaya yöneliktir.

Araştırma, İstanbul Bilgi Üniversitesi Klinik Psikoloji Yüksek Lisans Programı öğrencisi Uğur Kaan Öner tarafından Dr. Öğr. Üyesi Ümit Akırmak danışmanlığında bir tez çalışması kapsamında yürütülmektedir.

Bu araştırmaya katılım tamamen gönüllülük esasına dayalıdır. Çalışmanın amacına ulaşması için sizden beklenen, bütün soruları eksiksiz ve içtenlikle cevaplamanızdır. Anketi tamamlamanız yaklaşık 20-25 dakika sürmektedir. Araştırmanın herhangi bir noktasında **hiçbir gerekçe belirtmeden** anketi doldurmayı bırakabilirsiniz.

Araştırmaya katılmanın üzerinizde herhangi bir olumsuz etki yaratması beklenmemektedir. Ancak yanıt vermek istemediğiniz, size kendinizi rahatsız hissettiren sorular olursa herhangi bir sebep göstermeden araştırmadan çekilme hakkına sahipsiniz. Araştırmadan çekildiğiniz durumda verdiğiniz bilgiler değerlendirilmeye alınmayacaktır.

Anketin hiçbir aşamasında kimlik bilgileriniz sorulmayacak ve yanıtlar araştırmacılar dışında kimseyle paylaşılmayacaktır. Veriler toplu halde değerlendirilerek yalnızca bilimsel yayın amacıyla kullanılacaktır.

Eğer araştırmanın amacı ile ilgili verilen bu bilgiler dışında şimdi veya sonra daha fazla bilgiye ihtiyaç duyarsanız e-posta adresine ulaşabilirsiniz.

Anket sorularını cevaplamayı seçerseniz, istediğiniz zaman bırakabileceğinizi bildiğiniz, çalışmaya tamamen gönüllü katıldığınız ve elde edilen verilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ettiğiniz varsayılacaktır.

Yukarıda verilen bilgiler doğrultusunda, bu çalışmaya katılmayı kabul ediyorum.

Appendix B

Zimbardo Time Perspective Inventory

Zimbardo Zaman Perspektifi Envanteri

Her maddeyi okuyunuz, ve her madde için olabildiğince dürüst bir şekilde "Sizin karakterinizi ne kadar yansıtıyor veya sizin için ne kadar doğru?" sorusunu cevaplayınız. Aşağıdaki ölçeği kullanarak uygun kutucuğu işaretleyiniz.

	(1) Hiç doğru değil	(2) Doğru değil	(3) Ne doğru ne de yanlış	(4) Doğru	(5) Çok doğru
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
1. Bir kutlama için arkadaşlarla bir araya gelmenin hayattaki en büyük zevklerden biri olduğuna inanırım. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Çocukluğumu hatırlatan manzaralar, sesler ve kokular sıklıkla harika anıları geri getirir. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Kader hayatımda birçok şeyi belirler. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Sık sık hayatımda neleri farklı yapmalıydım diye düşünürüm. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Kararlarım genellikle etrafımdaki şeylerin ve insanların etkisi altında kalır. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Bir kişinin günü sabahtan planlamış olmalı. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Geçmişim hakkında düşünmek bana keyif verir. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Düşünmeden hareket ederim. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. İşlerin zamanında bitmemesi beni endişelendirmez. (9)

10. Bir şeyi başarmak istediğimde kendime hedefler belirlerim ve bu hedeflere ulaşmak için belirli yöntemler düşünürüm. (10)

11. Her şeyi göz önünde bulundurduğumda, geçmişimde hatırlanacak kötünden daha çok iyi şeyler bulunmaktadır. (11)

12. En sevdiğim şarkıyı dinlerken, genellikle zamanın nasıl geçtiğini anlamam. (12)

13. Yarının işlerini yetiştirmek ve diğer gerekli işleri yapmak, bu akşamın eğlencesinden önce gelir. (13)

14. Her şey olacağına varır, bu nedenle ne yaptığının bir önemi yoktur. (14)

15. Geçmiş güzel günlerin nasıl olduğunu anlatan hikayeleri dinlemekten hoşlanırım. (15)

16. Acı veren geçmiş deneyimlerim, zihnimde sürekli canlanır. (16)

17. Hayatımı mümkün olduğunca dolu dolu yaşamaya çalışırım; anı yaşarım. (17)
18. Randevulara geç kalmak keyfimi kaçıtır. (18)
19. Tercihen, her günümü son günümüş gibi yaşamak isterim. (19)
20. Güzel zamanlara ait mutlu anılar kolayca aklıma gelir. (20)
21. Arkadaş ve yetkililere karşı olan yükümlülüklerimi zamanında yerine getiririm. (21)
22. Geçmişten payıma düşen reddedilme ve kötü muameleden nasibimi aldım. (22)
23. Fevri kararlar veririm. (23)
24. Her günümü planlamaya çalışmak yerine, olduğu gibi yaşarım. (24)
25. Geçmişimde, düşünmek istemediğim oldukça fazla tatsız anı var. (25)
26. Hayatıma heyecan katmak benim için önemlidir. (26)
27. Geçmişimde, geri alabilmeyi istediğim hatalar yaptım. (27)

28. Yaptığım işten keyif almanın işi zamanında bitirmekten daha önemli olduğunu düşünürüm. (28)

29. Çocukluğuma özlem duyarım. (29)

30. Bir karar vermeden önce, yarar ve zararları tartarım. (30)

31. Risk almak hayatımı sıkıcı olmaktan kurtarır. (31)

32. Bana göre, hayat yolculuğunun tadını çıkarmak, sadece varış noktasına odaklanmaktan daha önemlidir. (32)

33. Olaylar nadiren beklediğim gibi gelişir. (33)

34. Eskiye ait tatsız görüntüleri unutmak benim için zordur. (34)

35. Hedef, sonuç ve çıktılar düşünmem gerektiğinde, bu durum sürecin keyfini kaçırır ve faaliyetlerimin akışını bozar. (35)

36. Anın tadının çıkarırken bile, kendimi geçmişte yaşadığım benzer deneyimlerle kıyaslama yaparken bulurum. (36)

37. Her şey sürekli değiştiği için

geleceğe dair plan yapamazsınız. (37)

38. Hayatımın gidişatı benim etkiyemeyeceğim güçler tarafından kontrol edilir. (38)

39. Yapabileceğim bir şey olmadığı için, gelecek hakkında kaygılanmanın bir anlamı yoktur. (39)

40. İstikrarlı bir şekilde ilerleyerek, projeleri zamanında tamamlarım. (40)

41. Ailem bir şeylerin eskiden nasıl olduğuyla ilgili konuşurken, kendimi bunları duymazdan gelirken bulurum. (41)

42. Hayatıma heyecan katmak için riskler alırım. (42)

43. Yapılacaklar listesi hazırlarım. (43)

44. Genellikle, mantığımdan ziyade kalbimin sesini dinlerim. (44)

45. Yapılması gereken bir iş olduğunu bildiğimde, cezbedici diğer şeylere karşı koyabilirim. (45)

46. Kendimi anın heyecanına kapılırken bulurum. (46)

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

47. Günümüz hayatı fazla karmaşık; geçmişin daha basit hayatını tercih ederdim. (47)

48. Arkadaşlarımın öngörülebilir davranmalarındansa spontane davranmalarımı tercih ederim. (48)

49. Düzenli olarak tekrarlanan aile ritüelleri ve geleneklerini severim. (49)

50. Geçmişte başıma gelen kötü şeyleri düşünürüm. (50)

51. Eğer benim ilerlememi sağlayacaksa, zor ve ilginç olmayan görevlerde çalışmaya devam ederim. (51)

52. Kazandıklarımı bugün keyif için harcamak, yarının güvencesi için biriktirmekten daha iyidir. (52)

53. Genellikle şans, sıkı çalışmaktan daha iyi sonuç getirir. (53)

54. Hayatta kaçırmış olduğum iyi şeyler hakkında düşünürüm. (54)

55. Yakın ilişkilerimin tutkulu olmasını severim. (55)

56. İşlerimi yetiştirmek için her zaman vakit olacaktır. (56)

Appendix C

Scale of Positive and Negative Experience Scale

Olumlu ve Olumsuz Deneyim Ölçeği

Lütfen son 4 hafta boyunca neler yaptığınızı ve deneyimlediğinizi düşünün. Ardından, verilen ölçeği kullanarak aşağıdaki duyguların her birini ne kadar deneyimlediğinizi rapor edin. Her bir madde için 1 ile 5 arasında bir sayı seçin ve bu numarayı işaretleyin.

	Çok Nadiren/Asla	2	3	4	Çok Sık/Her zaman
Pozitif					
Negatif					
İyi					
Kötü					
Hoşnut					
Tatsız					
Mutlu					
Üzgün					
Korkmuş					
Sevinçli					
Kızgın					
Memnun					

Appendix D

Brief Sensation Seeking Scale

Kısa Heyecan Arama Ölçeği

Lütfen aşağıdaki maddelere katılıp katılmadığınızı verilen ölçeği kullanarak belirtiniz.

	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
İlginç yerleri keşfetmekten hoşlanırım.					
Evde çok fazla zaman geçirdiğimde huzursuz olurum.					
Korkutucu şeyler yapmaktan hoşlanırım.					
Çılgın partilerden hoşlanırım.					
Rotası belli olmayan ve zaman sınırı olmayan bir geziye çıkmak isterim.					
Heyecan verici bir şekilde ne yapacağı belli olmayan arkadaşları tercih ederim.					
Bungee-jumping yapmayı denemek isterim.					
Yasadışı olsa bile yeni ve heyecan verici deneyimleri yaşamayı severim.					

Appendix E
The Performance Failure Appraisal Inventory
Performans Başarısızlık Değerlendirme Envanteri

Aşağıda kişilerin kendilerine ait duyguları anlatmada kullandıkları bir takım ifadelere yer verilmiştir. Her ifadeyi okuyun, sonra genelde nasıl hissettiğinizi, ifadelerin yan tarafındaki kutucuklardan uygun olanı işaretlemek suretiyle belirtin. Doğru ya da yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman kaybetmeksizin anında nasıl hissettiğinizi gösteren cevabı işaretleyin.					
	Hiç inanmıyorum		Zamanın %50'sinde inanmıyorum		Zamanın %100'ünde inanmıyorum
1. Başarısız olduğumda, genellikle bunun nedeni başaracak kadar zekice davranmamamdır	(-2)	(-1)	(0)	(+1)	(+2)
2. Başarısız olunca, geleceğim belirsiz görünür.	(-2)	(-1)	(0)	(+1)	(+2)
3. Başarısızlığım, benim için önem taşıyan insanları üzer.	(-2)	(-1)	(0)	(+1)	(+2)
4. Başarısız olunca, yeteneksizliğimi suçlarım.	(-2)	(-1)	(0)	(+1)	(+2)
5. Başarısız olduğumda, planlarımı değiştirmem gerektiğine inanırım.	(-2)	(-1)	(0)	(+1)	(+2)
6. Başarısız olduğumda, benim için önem taşıyan kişilerce eleştirilmeyi beklerim.	(-2)	(-1)	(0)	(+1)	(+2)
7. Başarısız olunca, yeteri kadar yeteneğe sahip olamadığımdan korkarım.	(-2)	(-1)	(0)	(+1)	(+2)
8. Başarısızlığım, "planlarımı" altüst eder.	(-2)	(-1)	(0)	(+1)	(+2)
9. Başarısız olduğumda, benim için önemli olan insanların güvenini yitiririm.	(-2)	(-1)	(0)	(+1)	(+2)
10. Başarısız olduğumda, başarılı olduğumdan daha az değerli olurum.	(-2)	(-1)	(0)	(+1)	(+2)
11. Başarısız olduğumda, insanlar benimle daha az ilgilenir.	(-2)	(-1)	(0)	(+1)	(+2)
12. Başarısız olduğumda, bunun planlarımı etkilemesinden endişelenmem.	(-2)	(-1)	(0)	(+1)	(+2)
13. Başarısız olduğumda, insanların bana daha az yardım ettiğini düşünürüm.	(-2)	(-1)	(0)	(+1)	(+2)
14. Başarısız olduğumda, benim için önem taşıyan insanlar mutsuz olur.	(-2)	(-1)	(0)	(+1)	(+2)
15. Başarısız olduğumda, kendimi daha kolay eleştiririm.	(-2)	(-1)	(0)	(+1)	(+2)
16. Başarısız olduğumda, sonucu kontrol edemediğim gerçeğinden nefret ederim.	(-2)	(-1)	(0)	(+1)	(+2)
17. Başarısız olduğumda, insanlar beni yalnız bırakma eğilimindedirler.	(-2)	(-1)	(0)	(+1)	(+2)
18. Başarısızlığımı başkaları görüyorsa bu durum utanç vericidir.	(-2)	(-1)	(0)	(+1)	(+2)
19. Başarısız olduğumda, benim için önem taşıyan kişiler başarısızlığımdan hayal kırıklığına uğramıştır.	(-2)	(-1)	(0)	(+1)	(+2)
20. Başarısız olduğumda, herkesin bunu bildiğini düşünürüm.	(-2)	(-1)	(0)	(+1)	(+2)
21. Başarısız olduğumda, bazı insanlar benimle bir daha ilgilenmezler.	(-2)	(-1)	(0)	(+1)	(+2)

22. Başarısız olduğumda, benden şüphelenenlerin şüphelerinde haklı olduklarına inanırım.	(-2)	(-1)	(0)	(+1)	(+2)
23. Başarısız olduğumda, bazı insanlar için değerim azalır.	(-2)	(-1)	(0)	(+1)	(+2)
24. Başarısız olduğumda, başkalarının hakkımda ne düşüneceklerinden endişelenirim.	(-2)	(-1)	(0)	(+1)	(+2)
25. Başarısız olduğumda, başkalarının başarılı olmak için çabalamadığımı düşüneceğinden endişelenirim.	(-2)	(-1)	(0)	(+1)	(+2)

Appendix F
Adult Inventory of Procrastination
Yetiřkinler için Erteleme Davranıřı Ölçeđi

Ařađıdaki ifadeler, farklı durumlara iliřkin dūřüncelerinizle ilgilidir. Her bir ifade bir diđerinden tamamen farklıdır, bu nedenle cevaplamadan önce lütfen her bir ifade üzerinde dikkatlice dūřününüz. Ařađıda verilen derecelendirme ölçeđini kullanarak mümkün olduđunca iten cevaplar veriniz.

- 1 = Kesinlikle katılmıyorum
2 = Katılmıyorum
3 = Kararsızım
4 = Katılıyorum
5 = Kesinlikle katılıyorum

- _____ 1. Faturalarımı vaktinde öderim. *
- _____ 2. Dakikimdir ve randevularıma zamanında giderim. *
- _____ 3. Randevuma geç kalmamak için bir gece öncesinden kıyafetlerimi hazırlarım. *
- __**__ 4. İstedięimden daha fazla geç kaldıđımı görüyorum.
- _____ 5. İřleri zamanında yetiřtiremem.
- _____ 6. Eđer biri “iřleri zamanında yetiřtirmek” üzerine bir kurs veriyor olsaydı, katılırdım.
- _____ 7. Arkadařlarım ve ailem son dakikaya kadar beklediđimi dūřünürler.
- _____ 8. Önemli iřleri vaktinden önce bitiririm. *
- _____ 9. İřlerimi teslim tarihine yetiřtirmek konusunda pek iyi deđilimdir.
- __**_ 10. Zamanında yetiřmek için kořuřturup duruyorum.
- _____ 11. Doktor randevusu almam gerektiđinde, ertelemeden alırım. *
- _____ 12. Tanıdıđım pek çok kiřiden daha dakikimdir. *
- __**_ 13. Sahip olduđum řeylerin düzenli bakımını (araba yađı deđiřtirmek gibi) yapmam gereken sıklıkta yaparım. *
- _____ 14. Belli bir saatte bir yerde bulunmam gerektiđinde, arkadaşlarım benim biraz gecikeceđimi tahmin ederler.

_____ 15. İşleri son dakikaya kadar ertelemek, geçmişte bana pahalıya mal oldu.

Appendix G

Decisional Procrastination Scale

Karar Vermeyi Erteleme Eğilimi Ölçeği

İnsanlar kararlar alırken farklılaşırlar. Lütfen aşağıdaki karar verme stillerinin size uygunluk düzeyini en uygun seçeneği işaretleyerek belirtiniz. Doğru ve yanlış cevap yoktur. Lütfen işaretleme yaparken her soruyu dikkatlice okuyunuz.

- 1- Yanlış
- 2- Çoğunlukla yanlış
- 3- Bazen doğru/Bazen Yanlış
- 4- Çoğunlukla doğru
- 5- Doğru

1	Son kararımı vermeden önce önemsiz konular üzerinde çok fazla zaman harcarım.	1	2	3	4	5
2	Bir karar aldıktan sonra bile onu ertelerim.	1	2	3	4	5
3	Gerçekten zorunlu olmaksızın karar vermem.	1	2	3	4	5
4	Artık çok geç olana kadar karar vermeyi ertelerim.	1	2	3	4	5
5	Karar vermeyi ertelerim.	1	2	3	4	5

ETHICS BOARD APPROVAL

Ethics Board Approval is available in the printed version of this dissertation.