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TIME PERSPECTIVE AND SELF-DEFINING MEMORIES: INDIVIDUAL DIFFERENCES IN TIME PERSPECTIVE AND CHARACTERISTICS AND FUNCTIONS OF SELF DEFINING MEMORIES AND RELATIONSHIP WITH GOALS

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Time Perspective and Self-Defining Memories: Individual Differences in Time Perspective and Characteristics and Functions of Self-Defining Memories and Relationship with Goals

Zaman Perspektifi ve Bellek Tanımlayıcı Anılar: Zaman Perspektifinde Kişilerarası Farklılıklar ve Benlik Tanımlayıcı Anıların Fenomenolojik ve İşlevsel Özellikleri ve Hedeflerle İlişkisi

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ABSTRACT

The aim of the present study was to investigate the relationship between individual differences in time perspective and a) characteristics of self-defining memories; b) functions of self-defining memories; c) satisfaction of basic psychological needs. In addition, we wanted to examine if there is a mediating role of basic psychological needs on the relationship between time perspective and autobiographical memory. A sample of 150 adults (116 women, 34 man) were administered Self-defining Memory Task (Singer and Moffit, 1991-1992), Autobiographical Memory Questionnaire (AMQ, Rubin, Schrauf, and Greenberg, 2003), Thinking About Life Experiences Scale (TALE-R, Bluck and Alea, 2011), Zimbardo Time Perspective Inventory (ZTPI; Zimbardo and Boyd, 1999), Basic Psychological Needs Scale (BPNS, Deci & Ryan, 2000; Gagné, 2003) and asked to report their current goals for exploratory purposes. Results indicated that there were correlations between time perspective and a) self-defining memory characteristics; b) self-defining memory functions, c) basic psychological needs. In addition, mediation analysis indicated that for autonomy mediated the relationship between Past Negative time perspective and overall characteristics of self-defining memories. The results indicate preliminary findings regarding the indirect effects of the need satisfaction on the relationship between time perspective and characteristics of self-defining memories.

Keywords: time perspective, autobiographical memory, self-defining memory, autobiographical memory functions, basic psychological needs

ÖZET

Bu çalışmanın amacı zaman perspektifi ile a) benlik tanımlayıcı anıların özellikleri arasındaki ilişkiyi; b) benlik tanımlayıcı anıların işlevi arasındaki ilişkiyi; c) temel psikolojik ihtiyaçlar arasındaki ilişkiyi incelemektir. Bunun yanında temel psikolojik ihtiyaçların zaman perspektifi ile benlik tanımlayıcı anılar arasındaki ilişkide aracılık rolü olup olmadığını incelemektir. 150 kişiden oluşan katılımcı grubu ilk olarak benlik tanımlayıcı olan bir anılarını bildirdiler ve bu anıyı anı özellikleri açısından ve işlevleri açısından değerlendirdiler. Daha sonra katılımcılar zaman perspektifleri ve temel psikolojik ihtiyaçlarının doyumu açısından değerlendirildiler. Bunun yanında kendilerine yöneltilen açık uçlu bir soru ile hedeflerini belirttiler. Sonuçların zaman perspektifinin benlik tanımlayıcı anıların özellikleri ve işlevleri ile ilişkileri olduğu iddiasını desteklediği söylenebilir. Bunun yanı sıra, sonuçlar temel psikolojik ihtiyaçların doyumunun zaman perspektifinin benlik tanımlayıcı anıların kalitesiyle ilişkisinde aracı etkisi olabileceğini gösterdi. Bu çalışma, zaman perspektifi ile benlik tanımlayıcı anıların özellikleri ve işlevlerine dair literatürde bilinen ilk çalışma olması ve temel psikolojik ihtiyaçların zaman perspektifi ile benlik tanımlayıcı anılar arasındaki ilişkiye aracılık özelliğini inceleyen ilk çalışma olması açısından farklılaşmaktadır.

Anahtar Kelimeler: zaman perspektifi, otobiyografik bellek, benlik tanımlayıcı anılar, otobiyografik anıların işlevleri, temel psikolojik ihtiyaçlar

INTRODUCTION

Tulving has proposed that remembering is a part of a unique capacity to mentally travel in time, suggesting a conceptualization both of remembering distant past and ability to imagine potential future scenarios (Tulving, 1985, 2002). However, the ability to mentally travel in time may not be same in all. Studies indicate that individual differences can play a role in autobiographical remembering. In their cognitive-motivational account, Conway and Pleydell-Pearce (2000) indicate that primary aim of autobiographical memories is to build self through attaining personal goals and needs. Autobiographical memories are specific memories that has fundamental importance for the self, emotions, and personality. Other theorists argue that primary aim of autobiographical memories is providing means for communication or acting as a glue for cultural transmission (Fivush et al., 1996).

Time perspective is a relatively stable individual differences process, a habitually formed orientation to emphasize specific time frames, that is, the past, present, or future (Zimbardo and Boyd, 1999)**.**

The main purpose of the present study is to explore the relationship between time perspective and autobiographical memory. Specifically, the aim of this study is examining the association between time perspective and phenomenological and functional characteristics of self-defining memories. Other aim is to examine the relationship between time perspective, self-defining memory, and goals.

CHAPTER 1
LITERATURE REVIEW

1.1. AUTOBIOGRAPHICAL MEMORY

Autobiographical memory is basically what people refer to when they talk about their memories. Autobiographical memory is the episodic memory for personally experienced events. (Rubin, 2005**).** Autobiographical memories are strongly related with the self and identity (Davison & Feeney, 2008; Conway, 2009) and they carry significance for self (Conway and Rubin, 1993, Fivush and Nelson, 2004). The relationship between autobiographical memory and self is bidirectional and autobiographical memories are reconstructed according to goals of the self (Conway and Pleydell-Pearce, 2000).

Functional approaches to autobiographical memory are understudied. Nelson (1993) indicated that autobiographical memory functions in terms of self-continuity and social functions that are in accordance with future goals and needs. According to functional approaches, why and how one remembers past has an evolutionary role to possible future needs of the individual (Pillemer, 1992)**.** In the following pages phenomenological and functional approaches to ABM will be discussed in detail.

1.1.1. Characteristics of Autobiographical Memory

Phenomenological experience has long been a central concern in the study of psychological research. Psychoanalysis basically is digging the phenomenological experiences associated with earliest memories to reveal their unconscious meaning. Phenomenological experience is a conscious process that provides perception of self in time and is associated with recollecting experiences (Tulving, 2002). The retrieval of sensory experiences makes them important in guiding our future goals and actions. Knowledge about phenomenological

characteristics provide us to analyze true and false memories; to understand characteristics of memory in clinical disorders and goal-driven processes in autobiographical knowledge (Sutin and Robins, 2007).

According to Sutin and Robins (2007) the most relevant phenomenological dimensions of autobiographical memory are vividness (visual clarity and visual intensity), coherence (extent to which the event is recalled as logical, coherent story rather than fragmented scenes), accessibility (ease of retrieval of the event), emotional intensity (intensity of emotions experiences during the event and recall), valence (whether the event is experienced as a negative or positive), vantage point (remembering in first person or as if an observer) and sharing (the extent to which event is shared with others). Among the other phenomenological characteristics are visual and auditory imagery, real/imagine (the extent to which the event is believed to be real rather than imagined), setting (the extent to which participant remembers the setting), remember/know (the extent to which individual remembers the event happened rather than just know that it happened), back in time (the extent to which participant can mentally travel back in time). There are also language **c**omponents as in words (the extent to which participants remember in words) and talk (the extent to which participant recalls himself/herself or others talking). In addition, importance attached and whether the event is experienced as self-defining are other properties. In autobiographical memory literature these properties are addressed to understand if they differ by another existing or experimental manipulation. In the present study those properties are addressed as regards to different time perspectives that individuals are prone to use.

Using cue-words to acquire associated autobiographical memories is a common method (Conway & Haque, 1999). Life history timeline method is about dividing participants' lives into intervals and requiring them to retrieve as many as memories in a timeframe and it is usually used in reminiscence bump studies (e.g., Demiray, Gülgöz and Bluck, 2009). In addition, proposing a definition of self-defining memory and then asking participants to retrieve their self-defining memories is another method (Singer and Moffit, 1991) often used.

1.1.2. Functions of Autobiographical Memory

Functional approach to autobiographical memory refers to its use or adaptivity in daily life (Bluck and Alea, 2002, Pillemer, 2009); the motivation and reason for remembering a certain memory (Harris, Rasmussen, & Berntsen, 2014); and use of memories for life lessons and guidelines (Pillemer, 2001, 2003). Bluck, Alea, Habermas, and Rubin (2005) indicate that the functional approach provides us to understand reasons to retrieve a specific memory instead of others. Research indicates that using autobiographical memories for their functions is associated with higher levels of well-being (Waters, 2013) and is related with possible future needs (Addis, Wong, and Schacter, 2007). Evolutionary, these events are rehearsed frequently in part for their directive function whereas according to Conway and Pleydell- Pearce (2000) these memories are related to individual's goals, needs and concerns.

Using autobiographical memory for their functions is an adaptive process but one that shows individual differences. Three functions of autobiographical memory postulated in literature are self, social, and directive functions (Bluck and Alea, 2002, Bluck et all, 2005, Pillemer, 1992). The self-function plays a critical role on using personal information in creating and maintaining a stable sense of self, that is self-continuity (Conway, 2003). A clear and coherent sense of self has been associated with higher levels of self-esteem (Campbell et al., 1996), well-being, greater personal growth (McLean & Lilgendahl, 2008) and lower levels of depression (Diehland et al., 2006). In addition, a well-organized self-knowledge that comprise past information is associated with ability to pursue goals (Conway, 2005). The social function serves as developing and fostering relations. According to social interactionists the primary purpose of autobiographical memories is sharing experiences with others and facilitating social interaction (Nelson, 1993, 2003, Alea and Bluck, 2003). Individuals who report to use social function are more likely to have satisfying relationships (Alea and Vick, 2010) and are more likely to be extraverted (Alea, Bluck, & Ali, 2015). Directive function refers to using past experiences to serve directive purposes such as solving current problems,

motivating, and inspiring, directing, and guiding our goals, actions, and behaviors (Bluck, et al., 2005). A negative personality is associated with less use of memory in a functional way (Cappeliez & O'Rourke, 2002). A positive personality (positive self-defining memories) might be associated with functional use of memory and high self-esteem (Liao et all., 2017).

TALE-R is a brief 15-item self-report encapsulating self, social and directive functions of ABM (Bluck and Alea, 2011). Bluck and Alea (2011) have shown significant correlation between the directive function subscale and Future Orientation Scale (Carstensen & Lang, 1996) indicating that people with a more open-ended view of future use their autobiographical memories more for directing their behaviors. Vranic and collegues (Vranic et al., 2018) administered TALE and ZTPI to young and older adults. Results of their study have shown that past negative time perspective was significantly correlated with the directive use of ABMs.

In summary according to functional approach autobiographical memories serve adaptive purposes for future needs of the individual. In order to examine how time perspective may associate with self-defining memories we will first review Conway's Self Memory System (Conway and Pleydell-Pearce, 2000) regarding, review literature regarding characteristics of self-defining memories and findings related to the factors that can impact on autobiographical memories.

1.1.3. The Self Memory System

Conway and Pleydell-Pearce (2000) proposed Self-Memory System (SMS) as a model to account the relationship between autobiographical memory and self. According to Self-Memory System autobiographical memories are vivid memories of a goal-driven process referred as the working self specifically organized to support our sense of self, a self that has a past, lives in the present, and foresees a future (Conway, Singer, Tagini, 2004). Our self-image and goals have a great impact on retrieving specific memories and reminiscing any memory is affected by our current self and goals. Relationship between memory and goals should be

considered reciprocal (Singer & Salovey, 1996) and autobiographical memories become conscious if they are integrated to current goals of the working self.

The working-self is set of goal driven processes based in one's autobiographical knowledge base. Conway (2005) puts that one of main functions of the working self is to create mental models generated from an autobiographical knowledge base. These mental models support the accessibility of memories which are closely related to past goals, including self-defining memories. Adaptive correspondence and self-coherence are two basic needs that are equally important for SMS. The need for adaptive correspondence requires that the event is encoded and recollected according to reality principle; whereas the need for self-coherence requires that memories are encoded and retrieved in a way consistent with the current goals and beliefs of the self. As there is always a fundamental conflict between these needs, the satisfaction of both requires compromise. Preserving balance between two needs, that is reality and goals related to self is main task of working memory. According to the model the working self will retrieve and even reconstruct the memories that are concurrent with the goals, needs and motivations of the current self to ensure self-continuity. The memories will not be recollected just as same as when they were encoded. Working self, will reconstruct memories to secure self-coherence. Basically, working self, reconstruct our memories in a way that does not contradict our current beliefs, needs, goals and self-image.

Autobiographical knowledge base is arranged hierarchically and in the current self-memory system there are four levels of information: Event-specific knowledge, general events, lifetime periods, and the life story (Conway, 2005). Event specific knowledge includes particular details about events (such as a specific comment during a conference), general events refers to repeated events that are categorized around theme (visiting someone every Bayram), lifetime periods refers to specific periods in one's life (when I was at university), the life story refers to memories that give important knowledge about the individual's concerns (Thomsen & Berntsen, 2008). It is argued that self-defining memories emerge from the life story memories. If the life story memories are linked to critical themes in an individual's narrative then they become self-defining memories (Singer et al.,

2012). It must be noted that these knowledge levels are connected rather than existing as separate entities.

A support for Conway and Pleydell-Pierce's (2000) self-memory system theory is Moberly and MacLeod's (2006) studies on accessibility of goal relevant event specific knowledge. Participants were asked to retrieve specific memories lasting less than one day; in addition, they were presented with a list of goals from Chulef et al.'s (2001) taxonomy and asked to choose the ones they are pursuing and rate them on several dimensions. Then participants were presented with three pursued and three non-pursued goals and were asked to retrieve a memory for their goals and non-goals. Cues related to goals and non-goals were used to retrieve memories. Then response latencies were measured. The results indicated that autobiographical memories associated with currently pursued goals were more accessible than the autobiographical memories that they were not pursuing.

Similarly, Berntsen and Thomsen (2005) designed a study about the impact of political involvement on phenomenological characteristics of autobiographical memory. Researchers compared individuals in terms of memory accuracy through comparison with historical data. It was found that ties with politics (conceptualized as goals in SMS theory) was associated with accuracy and vividness.

In summary, these studies indicate the relationship between self and autobiographical memory through goals. Goals are important in Self-Memory System through reconstructing the memory according to current needs and motivations of the self and current goals impact on working self. Wang (2008) indicates that currently active aspect of self may also determine which autobiographical memories will be recollected. Furthermore, goals, needs and motivations of the working self may lead to accessibility of memories that are in accordance with currently active self (Conway and Pleydell-Pearce, 2000).

1.1.4. Self-Defining Memories

While it is widely accepted that autobiographical memories encapsulate essential information; not all memories are related to one's enduring goals or

conflicts in the personality (Conway et al., 2004). Self-defining memories (SDM) provide information about individual's most enduring concerns (such as needs and goals) and unresolved conflicts. Proposed by Singer and Moffit (1991-1992) self-defining memories are vivid, affectively intense, are frequently rehearsed and they share narrative themes with other similar memories (Singer & Moffit, 1991-1992; Blagov & Singer, 2004, McLean & Pasupathi, 2006, Sutin & Robins, 2005).

A self-defining memory elicits more intense emotions than other memories because it is loaded with goal related information. Self-defining memories are shaped by our concerns, needs and long-term goals (Moffitt & Singer, 1994).

According to Berntsen (2001) traumatic experiences influence our autobiographical knowledge and constitutes the base of the self-system. Williams and Broadbent's (1986), highly influential study on overgeneralization indicated how suicidal patients tended to remember in an overgeneralized manner. Many studies proposed that mood disorders are associated with recollecting the past in a nonspecific manner (Williams et al., 2007). Researchers have shown that in normal adults, negative emotions fade more quickly than positive emotions (Walker, Skowronski, & Thompson, 2003). Depressive patients differ in terms of valence from healthy control groups in that positive memories are not as accessible for them and their recollections are less specific (Williams et al., 2007). Dalgleish and colleagues (Dalgleish et al., 2007) have shown that depression results in deterioration in working memory capacity that in turn leads to overgeneral memories. Findings regarding the relationship between Borderline personality disorder and overgeneral memory are inconsistent. Some studies indicate no relationship between BPD to specificity of memories (Arntz, Meeren and Wessel, 2002) whereas others support the hypothesis that BPD memories are less specific (Jorgensen et al., 2012). The self-defining memories reported by PTSD patients include trauma-related memories and are dominated by negative valence (Sutherland, 2005). These studies indicate that characteristics and content of SDMs change in behavioral disorders.

Self-defining memories can differentiate depending on different personality characteristics. For example, Blagov and Singer (2004) found that dimensions of

self-defining memories (specificity, content, integration, affect) are related to self-restraint, defensiveness, and levels of distress, more specifically repressiveness was associated with decreased specificity and detail (Raes et al., 2006). On the other hand, there are conflicting results that have shown defensiveness was associated with more specific details in self-defining memories and less negative words (Lardi et al., 2012).

These studies indicate that self-defining memories are highly related to needs, goals, and some personality dimensions; therefore, given a special interest in this study. Time perspective as a cognitive-motivational process can also be related with SDM. To our knowledge there is not a research concerning the relationship between characteristics of SDM which is a subtype of autobiographical memory and time perspective that is considered as a relatively stable disposition. Sutin and Robins (2008) indicate that self-defining memories may be a way of telling what to avoid, what one does not wants to be. Matthews and Stolarski (2013) hypothesize that past time perspective could be influential in accessibility of self-defining memories. Understanding how self-defining memories interact with time perspective may shed light on both clinical and cognitive aspects of autobiographical memory literature. Exploring SDMs in relation to individual differences and motivational factors may aid us to gain insight into how overemphasizing temporal zones alters the characteristics, properties, and functions of our memories.

1.1.5. Autobiographical Memory and Individual Differences

Although there is not a study concerning the relationship between self-defining memories and time perspective there are studies that have explored how individual dispositions interact with autobiographical memories. We believe understating how individual differences impact on autobiographical memory can guide us on time perspective's possible impact on self-defining memories. Research have shown that high neuroticism is linked to high ratings of emotional intensity, rehearsal, and high ratings of importance to identity (Rubin et al. 2011). Rubin and

Siegler (2004) examined individual differences in autobiographical memory and have found that recollection, memory perspective, vividness, and specificity, are closely related to personality. McLean and Fournier (2008) have shown that, openness to experience was associated with indebt narrating and neuroticism was associated with negative affect. Rasmussen and Berntsen (2010) have found that high ratings of openness were associated with vividness, relieve, coherence, importance to the identity. In addition, openness had correlated positively with using memories for directive and self-functions whereas neuroticism correlated with self-function. D'Argembeau and Van der Linden (2006) have found that when thinking about a future event, participants that had high ratings of vividness were also high on intensity of emotions and importance of the event. In addition, participants that had tendency to suppress their emotions had low sensory experience both when thinking about past and imagining future events. Results are in line with the findings that indicate overgeneral autobiographical memories might be an avoidant coping style. Researchers reported that there is a correlation between avoidant coping style and reduced specificity in remembering (Debeer et al., 2012). It is argued that overgeneral memory might be functional especially when memories are painful; therefore, remembering less details may aid individuals with affect regulation.

In summary, although research regarding the relationship between time perspective and autobiographical memory is scarce studies indicate that autobiographical memories can differentiate depending on individual differences and personality traits and cited studies indicate that both characteristics and functions of autobiographical memories can change depending on individual differences.

1.1.6. Autobiographical Memory and Goals

The self and autobiographical memory research is dominated by the evidence that memories are related to goals and that goals increase accessibility of related memories. In Self-Discrepancy Theory Higgins (1987) suggested that there

are three basic domains of self: the actual self, refers to representation of attributes that someone has, the ideal self, refers to representations of attributes that someone aspires to have, and the ought self, refers to representation of attributes that someone believes they should have. Drawing on Higgins' (1987) self-discrepancy theory Conway and Pleydell-Pearce (2000) proposed that goals that are associated with ideal or ought selves might be emotionally more intense.

If there is an overriding discrepancy between these three domains of self, working self will aim to reduce the discrepancy either through reconstructing self or autobiographical information stored in knowledge base. In other words, SMS model is based on a reconstructive process governed by a need for coherent goal structure. Based on this, working self will either reconstruct the self or memories in accordance with the current goals of the self.

The concept of goal reflects striving toward a future position. D'Argembeau and Mathy (2011) indicates that personal goals impact on generating imagery of future events. Engaging in personal goals is related to personally meaningful memories (Sutin, 2008; Sutin & Robins, 2008) and a life story memory becomes self-defining if it is related to non-attained goals, conflicts, and concerns (Singer, 1995).

Singer (1990) in his study on autobiographical memories and goals asked participants to retrieve memories and rate 15 goals based on Murray's psychogenic needs (e.g., achievement, dominance, avoidance, autonomy) for desirability. After retrieving and rating memories participants were asked to relate memories to the attainment or nonattainment of the goals. Results indicated that as the relevance of memories to goal attainment increased the more participants positively felt about their memories. For example, individuals rating goal "loving relationships" as very important tended to retrieve turning points with a loved one. In addition, it was observed that the more the participants desired "avoidance goals" the more negative affect attached to their memories. In other words, avoidance was associated with more intense pain.

Autobiographical memory theory emphasizes the relation among memory, self, and goals (Conway, 2005). However empirical studies examining the

relationship between goals and memory are few. Matthews and Stolarski (2019) argues that, time perspectives through habitual use become a part of self- schemas that direct behavior. They indicate that a childhood abuse can become an adults' self-schema and hence become a self-defining memory. As it is widely acknowledged remembering is reconstructive. They argue that memories may be reinterpreted in a consistent way with self-schemas and time perspectives and this may in turn influence associated memory.

1.2. TIME PERSPECTIVE

Zimbardo and Boyd (1999) focused on the individual perception of time and their study has impacted on a major portion of studies on time in psychology. According to their study, individuals can mentally travel in time as well as perceiving passage of time. While we are able to mentally travel in time, some people have a disposition to emphasize particular temporal zone. This disposition to emphasize some specific temporal zones is developed at early ages influenced by family, culture, and education. Zimbardo and Boyd (1999) proposed that personal and social experiences are assigned to temporal frames. These temporal frames organize and give meaning to those experiences. These frames are used during information processing as well as during goal based and imagery related tasks. Individuals gradually develop tendencies to emphasize particular frames that leads to a relatively stable and dominant time perspectives through which they make important judgements, respond to events in everyday life and direct their actions. How we recollect our personal memories and how we anticipate future events influences our behaviors and judgements. Remembering is a reconstructive process and future is formed by our expectations. Possible future consequences of our actions determine our behaviors. Tendency to overemphasize any of zones is associated with problems in psychological functioning (Holman & Silver, 1998). Zimbardo and Boyd (2008) indicated that being able to switch between temporal zones is the psychologically most adaptive for well-being.

Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999) is used to measure time perspective and contains five subscales oriented toward classifying individual's perspective of time: Past-Negative (PN), Past-Positive (PP), Present-Hedonistic (PH), Present-Fatalistic (PF) and Future (F). Past-Negative measures degree of negative view of the past. Past-Positive subscale represents positive memories and a pleasant view of the past. Present-Hedonistic represents living in the moment without concern for future consequences, and a risk-taking tendency. Present-Fatalistic represents negativistic views of future and life in general with a present focus. Future time perspective measures a general concern for future including concerns, future goals, and strivings. Balanced time perspective (BTP) is defined by less focus on negative orientations (Past-negative and Present-fatalistic); and focus of mostly positive orientation (Past-positive, present-hedonism, and future). Balanced time perspective is an indication of mental flexibility to switch between different time perspectives depending on the circumstances (Zimbardo and Boyd, 1999). Rather than fixating on a specific time perspective that could be associated with maladaptive patterns in case of overuse, Balanced time perspective is predictive of well-being. For example, Stolarski and colleagues (Stolarski et al., 2014) proposed that a well-balanced time perspective in other words a low DBTP score is associated to more positive mood. Also, there are studies that indicate a link between personality traits and Balanced time perspective (BTP). For example, Akırmak and colleagues (Akırmak et al., 2014) found that neuroticism is associated with a lower BTP score. In another study Stolarski et al., (2016) proposed that BTP might mediate the relationship between mindfulness and life satisfaction. Similarly, in another study Stolarski and Cyniak-Cieciura (2016) found that balanced time perspective mediated the relationship between temperament and trauma severity among survivors of vehicle accidents. Survivors of severe trauma that showed strong emotional reactions were prone to use a negative time perspective that that was associated with PTSD symptoms.

Witowska and Zajenkowski (2018) found that that Present Fatalistic and Past Negative correlated negatively with cognitive performance tasks. In their study, Present Fatalism was linked to greater worry and low task engagement.

Studies show that depressive patients' memories are less integrated and emotional valence of these memories is often negative. In addition, over-general memories among depressed individuals function as a cognitive avoidance strategy (e.g., Williams & Moulds, 2007). A review by Dalgleish et al., indicates that depression is associated with overgeneral memory. Based on these studies it would be meaningful to examine how past negative and present fatalistic time perspective associate with AMQ variables.

Many studies have shown the relationship between time perspective and well-being. For example, Past Negative has been correlated with depression, anxiety, low self-esteem (Zimbardo and Boyd, 1999) and with insufficient interpersonal relationships (Drake et al., 2008). Past Positive has been correlated with life satisfaction, happiness, and high self-esteem (Kazakina, cited in Zimbardo and Boyd, 1999). Present Fatalism time perspective is associated with aggression and depression. Present Hedonism is associated with positive affect, boredom avoidance (Sailer et al., 2014) and risk-taking behavior (Jochemczyk, et al., 2016). Future orientation is negatively associated with depression and trait anxiety and positively associated with goal striving and trait conscientiousness (Zimbardo & Boyd, 1999).

Time perspective is basically regarded as an individual differences process. However, some researchers regard time perspective as a relatively stable disposition (Boniwell and Zimbardo, 2004 Lens & Moreas, 1994; Zaleski, 1994). Many studies have shown support for trait-like nature of time perspective (e.g., Nurmi, 1989; Strathman, Gleicher, Boniger, & Edwards, 1994). While some researchers suggest that time perspective might be conceptualized as personality disposition (Kairys, Liniauskaite, 2015) this idea need to be evaluated through further research. Whether a personality trait or a cognitive motivational process time perspective is object of interest in the current study and literature regarding both demonstrate a relationship between autobiographical memory and time perspective.

1.2.1. Time Perspective and Autobiographical Memory

Research regarding the relationship between time perspective and autobiographical memory are fleeting. One exception is Ely and Mercurio's (2012) study. Researchers required 230 young adults to complete the Zimbardo Time Perspective Inventory (ZTPI; Zimbardo and Boyd, 1999), the Big Five Inventory (BFI) and retrieve seven memories and then rate them with a modified version of the Autobiographical Memory Questionnaire (AMQ; Rubin et al., 2003). Results indicated that Past-Positive predicts various aspects of autobiographical memory, including emotional intensity, rich sensory information, linguistically coherence, rehearsal frequency and a false belief that remembered events occurred. Future time perspective correlated positively with mentally traveling in time, vividness, affective intensity, and coherence. In addition, Future was not related to high ratings of importance attributed to past event. Past Negative was overall a poor predictor of the AMQ.

Studies from cognitive neuroscience focus on both ability of individuals to remember past events and ability to imagine and simulate future events. Although future thinking will not be the same as remembering, past studies indicate that both remembering and future thinking has overlapping neural processes (Schacter et al., 2007). Related to this line of research is a study by Arnold and colleagues (2011). Researchers administered Zimbardo Time Perspective Inventory to 133 undergraduate students and required subjects to rate phenomenological experiences following autobiographical remembering as well as future thinking. Results indicated that, different time perspectives were associated with differences in phenomenological experience both during remembering and future thinking. For example, Future and Present Hedonistic subscales were related to autonoetic consciousness. What was interesting in this study was that, scores on hedonistic attitude which is associated with little concern for future also predicted vivid autonoetic consciousness. This study is rather related with autonoetic consciousness and ability to place oneself in future, however autonoetic consciousness or mentally traveling forward in time is regarded as other side of mentally travelling backward

in time. In other words, how one relates to future is related to remembering the past. For this reason, this study can be directive for further studies concerning the relationship between past time perspectives and autobiographical remembering.

Stolarski et al. (2011) indicate that past positive and past negative are affectively laden with intense emotions whereas Future time perspective is more about directing behavior through emotion regulation. Studies have shown that individuals with mania has high present and low future focus (Gruber et al., 2012). Stolarski and colleagues (2016) in their study about mood and time perspectives asked participants to report their affect 4 weeks prior to the study. The measurement of affect was done 4 weeks prior to the study also. Results showed that Present Hedonism was related to remembering moods as more pleasant than they were. Researchers indicate that it might be that individuals with Hedonistic time perspective in that way avoid negative consequences of their past pleasure-seeking behavior. It could be that individuals with Present Hedonistic time perspective do have shared properties with individuals prone to mania (Gruber et al., 2012).

Zimbardo & Boyd (1999) indicated that Balanced time perspective reflects an ability to flexibly switch between time frames depending on situational demands and Zajenkowski, et al. (2016a) indicated that this account suggests Balanced time perspective's relations to other cognitive processes. In fact, some researchers indicate that Balanced time perspective is based on cognitive processes (Zajenkowski, Carelli, & Ledzinska, 2015). Recently there are studies on the relationship between time perspective and cognitive ability. For example, there are some supportive studies on the relationship between Balanced time perspective and its cognitive foundations. Zanjenkowski and colleagues (Zanjenkowski et al., 2016) explored the relationship between time perspective and fluid intelligence and executive control. Results indicated that Balanced time perspective was linked to higher fluid intelligence and executive control. In addition, the relationship between Balanced time perspective and executive control was mediated by fluid intelligence. It should be noted that this could be an indication of effect of personality factors associated with time perspective such as higher anxiety rather than a cognitive

disability associated with present fatalistic time perspective. However, it still suggests that time perspective might influence cognitive performance tasks.

Similarly, Wittowska & Zajenkowski, (2018) found that scores on Present Fatalistic and Past Negative were negatively correlated with a cognitive performance task and the relationship was mediated by levels of stress. Furthermore, it was found that stress mediated the relationship between different time perspectives and executive functioning. To put it more clearly, the association between Past Negative and cognitive performance was mediated by distress, whereas the association between Present Fatalistic scores and inhibition was mediated by task engagement.

Recently, Rönnlund and Carrelli (2018) examined the relationship between cognitive ability and Balanced time perspective in older adults. They found that g factor that reflects four cognitive abilities was negatively associated with DBTP. One of the importance of this research for the current study is that they used episodic memory as one of the markers of cognitive ability. Participants were requested to complete a free recall task as one of the measures of cognitive ability. Different than other studies that found a mediation effect of stress on this relationship in this study stress levels did not account the relationship. However, they found a moderating role of age on the relationship between cognitive ability and DBTP.

Another supportive research comes from neurological data. Guo et al. (2017) investigated neural substrates of DBTP. Analysis indicated that DBTP scores were positively correlated with gray matter volume (GMV) in the ventral precuneus. In addition, DBTP was negatively associated with different brain regions that involved in many functions including episodic and autobiographical memory, self-related processing, theory of mind and imaging the future. This study is important as it provides the first evidence for neural basis of Balanced time perspective and its relation to autobiographical memory.

Taken together these studies indicate that there might be an association between time perspective and cognitive processes as well as a mediating role of stress. Autobiographical memory tasks could be regarded as performance tasks

based on cognitive processes. Therefore, these studies on time perspective and cognitive tasks are presented to capture a possible relationship between time perspective and autobiographical memory.

1.3. BASIC PSYCHOLOGICAL NEEDS

Deci and Ryan in their influential Handbook of Self-Determination Research indicate that "….people who have actually been suicidal, have invariably been dealing with significant threats to relatedness, shame, or hopelessness concerning ineffectiveness at central life goals, or with a deep sense of their agency having been vanquished. (Ryan and Deci, 2000, p. 321). Within self-determination theory quality of interpersonal relations is of crucial impact to one's future anticipations and absence of confidence in relations is associated with a more fatalistic view of life. Self-determination theory (SDT) posits three universal psychological needs: autonomy, competence, and relatedness that are innate but at the same time sensitive to individual differences. Extent to which these three needs are satisfied or not has significant impact on well-being. Competence refers to a desire to be self-efficient and influence the environment. Relatedness refers to the desire to be connected to others and to be loved. Autonomy refers to desire to control one's life, be in accordance with one's integrated sense of self.

Satisfaction of needs for autonomy, relatedness and competence is linked to psychological well-being (Sheldon and Niemiec, 2006) and mindfulness (Deci et al., 2017). On the other hand, need frustration is linked to distress (Trépanier et al. 2015) and depression (Bartholomew et al. 2011a). Similarly, Chen et al. (2015) in their cross-cultural study indicated that satisfaction of the three needs predicted well-being and frustration of them was linked to ill-being and depressive symptoms across different cultures.

1.4. ASSOCIATION BETWEEN TIME PERSPECTIVE AND BASIC PSYCHOLOGICAL NEEDS

Difficulties in achieving need satisfaction is associated with time perspectives (Akırmak et al, 2019). Church and colleagues (Church et al., 2013) in their study on need satisfaction and well-being found that need satisfaction predicted overall well-being including openness, emotional stability, conscientiousness, more positive affect, and less negative affect. The findings were similar across cultures and were more predictive than Big Five traits. Baard and colleagues (Baard, Deci & Ryan, 2004) have shown that satisfaction of basic psychological needs correlates with work performance.

In addition, there are several studies indicating links between time perspective and satisfaction of basic psychological needs. For example, Zhang and colleagues (Zhang, Howell and Stolarski., 2013) in their study on time perspective and subjective well-being administered Zimbardo time perspective inventory (ZTPI) together with subjective well-being measures and found that Balanced time perspective was related to increased need satisfaction, self-determination, positive affect. Similarly, Akırmak and colleagues' (Akırmak et al., 2019) in their study on relationship between need satisfaction and autonomous related self and time perspective administered Basic Psychological Needs Scale and found a direct link between need satisfaction and Balanced time perspective; specifically autonomy and competence predicted Balanced time perspective. Akırmak et al.'s (2019) study is directive for current study as the results provide a ground for the relationship between time perspective and basic psychological need for autonomy and competence.

1.5. ASSOCIATION BETWEEN BASIC PSYCHOLOGICAL NEEDS AND AUTOBIOGRAPHICAL MEMORY

In autobiographical memory literature goals are often used interchangeably with concerns, needs and motivations. It was indicated that in SMS theory goals are

of crucial importance for both self-continuity and coherence. Goals are also linked to time perspective theory. But to examine the interactive relationship between time perspective, autobiographical memory and goals; conceptualization of goals in terms of time perspective and autobiographical memory needs to be stated explicitly. For example, in autobiographical memory literature participants are given predetermined goal taxonomies such as Chulef, Read, and Walsh's (2011) goal taxonomy. At the same time there are studies that use Murray's 20 psychological needs to examine the relationship between autobiographical memories and goal desirability (Singer, 1990) in which goals are conceptualized psychological needs. It must be noted that Murray's psychological needs are in accordance with Self-Determination theory and include needs such as dominance, avoidance, and autonomy. Similarly, in current study Basic Psychological Needs are going to be conceptualized as goals. This is important because as indicated before, studies indicate that personal goals influence accessibility of autobiographical memory and that this effect is moderated by goal concordance. (Moberly and MacLoad, 2007). In other words, goals that are related to currently pursued goal are more accessible than non-pursued goals. With the same reasoning, it could be that basic psychological needs have a dynamic relationship with time perspective and autobiographical memory in a way that time perspective as relatively stable disposition exerts an influence on needs and in turn how and why memories are recollected in individuals with different time perspectives. From a Self-Memory System account, self-defining memories that are associated with need satisfaction should be associated with accessibility and psychological well-being. This is in line also with functional approaches to memory. Because theories on adaptive use of memory suggest that memories are rehearsed for developing a narrative identity, directing behavior and for social bonding that are associated with well-being.

Furthermore, there is also a study that examined the relationship between need satisfaction and valence of autobiographical memories. In their study on how need satisfaction in autobiographical memories is related to well-being Philippe and colleagues (Philippe, et al., 2011) found that need satisfaction had a greater

predictive value on well-being above the components of autobiographical memory as rehearsal, valence, vividness and personal importance of the memory. In addition, they found that need satisfaction and valence of self-defining memories were correlated.

1.6. TIME PERSPECTIVE, BASIC PSYCHOLOGICAL NEEDS AND AUTOBIOGRAPHICAL MEMORY

To my knowledge there is one study that investigated the relationship between time perspective and autobiographical memories (Ely, Mercurio, 2012). However reviewed studies regarding individual differences in autobiographical memory indicate that characteristics of memories can be influenced by different factors including personality traits. Second, reviewed studies indicate that characteristics of autobiographical memories are associated with goals (Moberly and Mac Load, 2006). Third, there are several studies indicating links between time perspective and need satisfaction (Zhang et al., 2013; Akırmak et al., 2019). However, there is no model examining the possible relationship between these three constructs. In fact, the studies on need satisfaction as a mediator are scarce. One exception is Gonzales et al., study (2014) that found satisfaction of the three needs mediates the relationship between socioeconomic status and mental health. Another study recently found that need satisfaction mediated the relationship between self-control skills and well-being (Orkibi et al., 2017).

Self-Memory System (Conway and Pleydell Pearce, 2000) proposes that memories are recreated depending on situational demands of self and goals of the self. With that conceptual framework in mind, time perspective as a relatively dispositional construct of self would be associated with both characteristics and functions of self-defining memories. Furthermore, goals, that is basic psychological needs, as a situational factor could be a mediating factor between this relationship.

Based on the SMS theory, it could be proposed that there is a relationship between the satisfaction of these psychological needs, time perspectives and autobiographical memory, specifically self-defining memories.

Assessing goals empirically can be difficult. A recent study by Talevich and colleagues (Talevich et al., 2017) based on Chulef, Read, and Walsh's (2011) multidimensional taxonomy of human motives provided a comprehensive, empirically constructed taxonomy of 161 human motives drawn from the literature. This taxonomy enables to select among domains of interest and different levels of motives. It provides a framework for reliably measuring the human motivations. Furthermore, as researchers indicated, components in this taxonomy overlap with Self-determination theory's three needs, that increases its applicability. A predetermined taxonomy of goals can be another alternative useful tool for comparing individuals in terms of a common set of motives.

1.7. CURRENT STUDY

It is widely accepted that self-defining memories contain information related to self. The concept of self-defining memory can enable us to investigate relationship between time perspective as a dimension of self and autobiographical memories. As reviewed above there are studies indicating the impact of individual difference on autobiographical memory and episodic future imagery. However, to our knowledge, there is no study about the relationship between time perspective and characteristics of self-defining memories.

Accordingly, the general aim of the present study is to examine the relationship between time perspective and autobiographical memory, specifically self-defining memories. First, we will examine the relationship between time perspectives namely, past positive, past negative, present hedonistic, present fatalistic, future and aspects of autobiographical memories. In addition, DBTP score will be computed to analyze how Balanced time perspective is associated with aspects of autobiographical memories. These aspects include two broad categories: Phenomenological and functional characteristics of memory. Phenomenological aspects are operationalized as 19 variables in AMQ and 3 domains in TALE are operationalized as functional aspects of self-defining memory. We want to examine whether the individual differences in time perspective are associated with

individual differences in the phenomenological and functional characteristics of self-defining memories.

The second aim of this study is to examine relationship between time perspectives and goals. More specifically we aim to replicate the finding of Akırmak et al., (2019) study that indicated links between time perspective and need satisfaction. Similarly, we want to explore the links between time perspective and basic psychological needs namely autonomy, relatedness, and competence.

The third aim is to explore involvement of goals in relationship between time perspective and characteristics and functions of self-defining memories. Literature review indicates that goals due to their motivational function are in a relationship both with time perspective and autobiographical memory. What is more, the motivational feature of the time perspective (including needs, motives, and goals) is an important factor which relates time perspective to autobiographical memory. In addition, basic psychological needs are linked to well-being and time perspective. Therefore, we want to explore if there is a mediating role of any of basic psychological needs in relationship between any time perspective and self-defining memories.

The fourth aim is to explore how personal goals listed by participants are distributed in Talevich et al.'s (2017) goal taxonomy and whether goals are associated with time perspectives.

In the light of literature following hypothesis regarding the relationship between time perspective and characteristics of autobiographical memory are specified.

Hypothesis 1a: To our knowledge there are no studies that explored the relationship between Balanced time perspective and autobiographical memory however there are studies indicating that BTP is associated with cognitive ability to switch between different time perspectives (Zimbardo and Boniwell, 2004), well-being, and in fact, higher ability to use cognitive resources (Zajenkowski et al., 2016a, Witowska and Zajenkowski 2018). Based on this, we expected that Balanced time perspective would positively associate with positive emotions and

negatively associate with negative emotions. We did not have any other specific hypothesis regarding other AMQ variables. We aimed to explore the relations.

Hypothesis 1b: Ely and Mercurio's (2012) findings indicated that Past Positive time perspective predicted several aspects of memory including emotional intensity, sensory information, coherence, rehearsal and real/imagine. In addition, there is a large body of work documenting the close connection between mood and memory (Eich and Forgas, 2003). Similarly, it was expected that Past Positive time perspective would correlate positively with emotional intensity, positive emotions, coherence, rehearsal, real/imagine, remember/know, vividness and negatively correlate with negative emotions. We did not have any other specific hypothesis regarding other AMQ variables.

Hypothesis 1c: Ely and Mercurio (2012) indicated that Future time perspective was associated with vividness, mental time travel, affective intensity, and coherence. Participants with a future time perspective are oriented towards accomplishing their goals rather than dwelling on memories. Therefore, theoretically we would not expect them to recollect memories as often and they would possibly be less inclined to regard their experiences as self-defining and they would be less likely to feel the same now and the intensity of emotions would not be strong. In addition, Ely and Mercurio's (2011) study found no links of Future time perspective to importance and frequency variables in AMQ. Therefore, we expected no correlation between Future TP and importance, rehearsal, feel the same now and intensity variables in AMQ. We expected that Future time perspective would correlate with vividness, and coherence. We had no other hypothesis, we aimed to explore other possible relationships.

Hypothesis 1d: As reviewed, studies indicate that Past Negative and Present Fatalistic time perspective associate with depression (Zimbardo and Boyd ,1999) in addition they are associated with poorer cognitive performance (Witowska and Zajenkowski, 2018). Furthermore, depression is characterized with overgeneral memory (Dalgleish et al., 2007) and that depressive individuals' self-defining memories are less integrated and emotional valence of these memories is

often negative. Researchers indicate that overgeneral memories function as a cognitive avoidance strategy (Williams & Moulds, 2007). Given the decrease in memory specificity, that has been associated with depression (Rubin et al., 2003; Williams & Moulds, 2007) and the association between depression and Present Fatalistic and Past Negative we predicted that Past Negative and Present Fatalistic perspective would be negatively associated with vividness and narrative coherence; positively associate with rehearsal as depressive thinking is associated with rumination. Zimbardo and Boyd (1999) indicated that Past Negative is associated with a sense of significance attributed to past experiences. Based on this, we expected that Past Negative and Present Fatalistic would be associated with importance and self-defining variables. In line with self-verification hypothesis (Swann, 1997) that proposes to maintain self-continuity a PN and PF may strategically exaggerate a view of negative past resulting in negative affect we expected Past Negative and Present Fatalistic to negatively associate with positive emotions and positively associate with feel the same now and negative emotions. We do not have any hypotheses regarding other AMQ variables.

Hypothesis 1e: Studies indicate that Present Hedonistic time perspective is associated with positive affect, boredom avoidance (Sailer et al., 2014) and risk-taking behavior (Jochemczyk, et al., 2016). Furthermore, in line with Gruber et al., (2012) that indicated a possible link between mania and Present Hedonistic time perspective we would expect an avoidant coping strategy among individuals with Present Hedonistic time perspective that is associated with mania and pleasure seeking behavior. Therefore, we expected that Present Hedonistic TP would correlate positively with positive emotions and feel the same now; negatively correlate with negative emotions.

Hypothesis 1f. Regarding functional use of autobiographical memory although not directly related to our future time perspective concept, Bluck and Alea (2011) found that individuals with an open-ended sense of future tend to use their memories more for directive purposes. Directive function serves to direct future goals and behavior (Bluck, Dirk, Mackay, & Hux, 2005) and that memories that serve directive function are most negative in terms of valence (Alea et al., 2013).

Furthermore, theoretically, it is reasonable to assume that individuals that are concerned with attainment of future goals would be more inclined to use their memories for directing their behavior and emotion regulation. Therefore, we hypothesized that Future TP would correlate positively with Directive Function of TALE.

Hypothesis 1g. Regarding functional use of autobiographical memory Vranic et al. (2018) indicated that individuals with a Past Negative time perspective are more inclined to use their memories for directive purposes. In fact, result of their study indicated that Past Negative was associated with all three functions of TALE. In our study, our participants are young adults, therefore we expected a correlation between directive function and Past Negative. Theoretically an individual with a Past Negative might have a tendency to learn from past to direct their behavior, but a Present Fatalistic has a gloomier view of past, present and future that might be associated with less functional use of autobiographical memory in total. We did not have a hypothesis regarding Past Positive and Balanced time perspective's possible correlates of TALE, we aim to explore any relationship.

Regarding the relationship between time perspective and basic psychological needs, studies indicated satisfaction of needs is predictive of well-being, mental health and mindfulness (Sheldon and Niemiec, 2006, Gonzales et al., 2014, Olafsen, 2017). Akırmak et al.'s (2019) study indicated that time perspective was associated with basic psychological needs. Similarly, we attempted to replicate their findings regarding the relationship between time perspective and need satisfaction.

Hypothesis 2: In addition, we wanted to explore how narrative characteristics of self-defining memories (specificity, integration, affect) associated with different time perspectives. Based on research on overgeneralization and depression (William and Moulds, 2007) we hypothesized that Past Negative and Present Fatalistic time perspectives would be correlated with nonspecific and negative self-defining memories whereas Past Positive would be associated with

specific and positive self-defining memories. We had no other hypothesis concerning narrative characteristics and time perspective.

Hypothesis 3: Based on studies that indicate links between goal concordance and autobiographical memory accessibility (Moberly & MacLeod, 2006) and based on Self- Memory System (Conway & Pleydell-Pearce, 2000) that encapsulates working memory processes and autobiographical knowledge base we want to examine if the relationship between time perspective and characteristics and functions of autobiographical memory would be mediated by basic psychological needs operationalized as goals.

Hypothesis 4: Future time perspective is positively associated with goal striving (Zimbardo & Boyd, 1999). Based on this proposition we wanted to explore whether current goals associated with Future time perspective would differ from present oriented time perspectives, Present Hedonistic and Present Fatalistic time perspectives.

CHAPTER 2

METHOD

2.1. PARTICIPANTS

A total of 150 participants aged between 20 and 30 were recruited through convenience sampling method. Of the sample there were 116 females (77.3 %) and 34 males (34.7 %). The participants' ages ranged from 20 to 30 (M = 23,4). The sample was initially recruited from introductory psychology courses in Bilgi University. Students participated in the study in exchange for course credit. However due to Covid-19 pandemic rest of the data was collected through online tools. Therefore, our population included non-student participants as well.

The distribution of the sample regarding relationship status and SES is presented in Table 1. In terms of socioeconomic status, 82,7% of the sample was distributed to middle SES (38%) and middle high SES (44,7%), 11,3% identified their SES as low middle 4 % as low and only 2 % high SES. Relationship status was nearly equally distributed to have a relationship (47,7 %) and do not have a relationship (53,3 %). Overall, the sample consisted of mostly middle to middle high SES women between the ages of 20 and 30.

2.2. INSTRUMENTS

The instruments used in this study were Demographic Information Form, Self-Defining Memory Task, Autobiographical Memory Questionnaire (AMQ), Thinking About Life Experiences Scale (TALE-R), Zimbardo Time Perspective Inventory (ZTPI), Basic psychological needs scale (BPNS) and Goal listing request.

Table 2. 1

Demographic Characteristics of Participants

		N	(%)
Relationship Status	Yes	70	46,7
	No	80	53,3
SES	Low	6	4
	Low-middle	17	11,3
	Middle	57	38
	High-middle	67	44,7
	High	3	2

2.2.1. Demographic Information Form

Demographic information form included questions regarding their age, gender, relationship status and socioeconomic status.

2.2.2. Self-Defining Memory Task

The self-defining memory task was based on the procedure designed by Singer and Moffit (1991-1992). The task was adapted by Mutlutürk and Tekcan (2015). Participants were given a definition of a self-defining memory and were asked to write one self-defining memory based on this definition. This definition basically includes phenomenological characteristics of self-defining memory regarding its vividness, affective intensity, being repetitively recalled and being linked to other concerns, conflicts, goals and needs; an event that is personally important and defines who one is as a person.

2.2.3. Autobiographical Memory Questionnaire

The Autobiographical Memory Questionnaire (AMQ) was developed by Rubin, Schrauf, and Greenberg (2003) to measure phenomenological properties of autobiographical memories. Current study used Turkish adaptation of the scale translated by Gülgöz in Gülgöz, Rubin (2007) study. Turkish version includes 14 items rated on 7-point Likert scale. For the purpose of our study, in addition to those 14 items we included ratings regarding vantage point, intensity, valence of emotions and extent to which the memory is self-defining making in total of 18 items in the following order; 1. reliving, 2. hear 3. see, 4. talk, 5. feel the same now, 6. setting, 7. remember/know, 8. in words, 9. back in time, 10. coherent story, 11. importance , 12. real/imagine, 13. Rehearsal (talked about), 14. Field-observer, 15. intensity, 16. positive emotions, 17. negative emotions, 18. self-defining. Participants were also asked to state the date of the memory. Chronbach's alpha for the current study was .83.

2.2.4. Thinking About Life Experiences Scale (TALE-R)

TALE scale is developed by Bluck, Alea, Habermas, and Rubin (2005) and revised by Bluck and Alea (2011). The scale consists of 15-items assessing the self, social, and directive functions of autobiographical memories. Responses are given on a 5-point Likert-type scale, with 1 = almost never to 5 = very frequently. Current study adapted Turkish translation used in a previous study by Göz (2016) with some vocabulary changes and adaptation of 5-point Likert type. The Chronbach's alpha for 15-item scale are .84 for Self-Continuity function; .72 for Social-Bonding function; and .78 for Directing-Behavior function. The reliability for the current study were .78 for self-continuity; .76 for social-bonding; and.73 for directive function; and .86 for total-function.

2.2.5. Zimbardo Time Perspective Inventory (ZTPI)

The ZTPI developed by Zimbardo and Boyd (1999) consists of 56 items rated on a 5-point Likert scale. The scale is comprised of five subscales which include past positive (PP), past negative (PN), present hedonistic (PH), present fatalistic (PF) and future (F). Internal consistency values for subscales were estimated as .75, .84, .75, .69, .76 respectively in a Turkish sample (Akırmak, 2019). The scale was adapted to Turkish by Kışlalı-Erginbilgiç in the study by Sircova et al. (2015). Psychometric properties of the Turkish version of the scales revealed adequate internal consistencies. Cronbach's alpha's were as follows respectively .69, .81, .76, .65, .73. The reliability estimates for the current study were .85 for Past Negative, .77 for Present Hedonism, .76 for Future, .85 for Past Positive, and .68 for Present Fatalistic. In addition, DBTP was computed to evaluate how much individual deviates from balanced time perspective (Stolarski et al., 2011). For computing DBTP the obtained ZTPI scores were subtracted from the optimal factor scores and then squared and square root of this result is DBTP. Lower scores in DBTP indicate a high level of Balanced Time Perspective (BTP) and score zero signifies perfect balance.

2.2.6. Basic Psychological Needs Scale (BPNS)

BPNS is based on Self-Determination Theory developed by Deci and Ryan (2000) and assesses participants' satisfaction of the needs for autonomy, competence, and relatedness. The adaptation of scale to Turkish is developed by Kesici et all. (2003). Turkish version consists of 21 items rated on a scale ranging from 1 (not at all true) to 5 (very true). The scale is composed of three sub-scales as the autonomy need, competence need, and relationship need. Higher scores are indicative of a higher level of satisfaction of needs. The Cronbach's alpha coefficient was .76 for the whole scale (Kesici et all. 2003). The internal consistency estimates were .75 for autonomy; .69 for competence; and .83 for

relatedness in Akırmak et al study (2019). The reliability for the current study were for .70 Competence, .70 for Autonomy, and .81 for Relatedness.

2.2.7. Goal listing request

Participants were requested to list at most five current goals they were pursuing.

2.3. CODING OF THE SELF-DEFINING MEMORY CONTENT

Narrative characteristics of self-defining memories were coded according to "the classification system and scoring manual for self-defining memories" (Singer & Blagov, 2000-2001). Memories were coded based on their 1) specificity as either specific if the event is a unique occurrence with details and took place in less than 24 hours or non-specific; 2) integration as either integrative if the memory conveys a meaning in individual's life and individual has learned something about her/himself or the world or non-integrative in absence of any lesson; 3) affect as either positive and negative.

2.4. CODING OF PERSONAL GOALS

Personal goals indicated by participants were coded according to Talevich et all.'s (2017) taxonomy of motives. The cluster levels are Z, Y, X, W, V. At the highest level is Z cluster which is an abstract level composed of Meaning, Communion and Agency. In the current study, X level that composed of 14 motives was used to code the data. Motives in X level are as such: X1: Morals and Values, X2: Virtues, X3: Religion and Spirituality, X4: Self-Fulfilling, X5: Openness to Experience, X6: Self-Protect, X7: Avoid Hassle, X8: Security and Belonging, X9: Power, X10: Health, X11: Family, X12: Ambition and Ability, X13: Intellectual Competence, X14: Financial and Occupational Success.

2.5. PROCEDURE

After the institutional ethics approval, the data was initially collected by the researcher with the assistance of three psychology students in Bilgi University labs. Nearly 100 participants were tested individually or in groups. During data collection process Covid-19 pandemic emerged which made impossible to collect data face to face. Rest of the participants attended to the study via online survey link. Announcements for the participation in the study were made via social-media posts.

Prior to the study participants were informed that the study was related to personal memories and they could provide any details they deemed suitable. Informed consent was obtained from all participants at the beginning of the study.

The data collection procedure consisted of five steps. First, Self-Defining Memory Task was given. Participants were requested to write down one self-defining memory. Second, following memory, participants were asked to rate the memory in terms of their characteristics and functions via Autobiographical Memory Questionnaire and Thinking About Life Experiences Questionnaire. The order was counterbalanced for AMQ and TALE. Third, participants completed the Zimbardo Time Perspective Inventory, stated their current goals, and completed Basic Psychological Needs Scale (BPNS). The order of three scales was also randomized.

After completing the measures, participants were provided with the contact information of researcher in case any questions arise as regards the study and were debriefed and informed that they can learn the results of the study. There was not a time limitation during data collection. Each session took approximately 30-45 minutes.

2.6. DATA ANALYSIS

In current study there was one main independent variable, Time Perspective, as measured by five subscales of Zimbardo Time Perspective Inventory (ZTPI) plus

computed DBTP. Additionally, based on theoretical reasoning and related literature there was one mediator variable, measured by three subscales of Basic Psychological Needs Scale (BPNS). The dependent variables of the study were self-defining memory characteristics measured by the Autobiographical Memory Questionnaire (AMQ) and self-defining memory functions measured by Thinking About Life Experiences Questionnaire (TALE-R). A Mean score for AMQ and TALE total function was used for mediation analysis.

Pearson correlation analyses was conducted to test the correlational hypothesis regarding the relationship between time perspective and characteristics and functions of time perspective, of basic psychological needs and time perspective scores. T test was conducted to observe each time perspective in terms of 1) specific and non-specific, 2) integrative and non-integrative, 3) positive and negative affect conditions. Mediation Analyses were conducted with the dependent variables of characteristics (AMQ) and functions of autobiographical memory (TALE) with the predictor variable of time perspective (ZTPI subscales).

CHAPTER 3
RESULTS

In the present study, each phenomenological properties of memories rated by participants were treated as variables, that is, every item in AMQ generated a variable. Based on self-defining memory request each participant was requested to rate their memories in autobiographical memory questionnaire. Variables were measured on an ordinal scale. AMQ scale included 18 items and an item regarding the date of the event. Vividness, the mean score of relieving, hear and see variables was generated after collecting the data.

The findings of the current study are presented in three main sections. First, descriptive statistics for the AMQ, TALE, ZTPI, BPNS and scale scores are presented. Second, Pearson correlation analyses that indicate the relationships between AMQ and ZTPI; relationship between TALE and ZTPI; and relationship between ZTPI and BPNS are given. Third, t test results regarding time perspective and narrative characteristics of self-defining memories are given. Fourth, results of mediation analysis are presented indicating the extent to which needs 1) mediate the relationship between time perspective and characteristics of self-defining memories 2) mediate the relationship between time perspective and functions of self-defining memories. Fifth, frequency table regarding the personal goals of study sample are presented.

3.1. DESCRIPTIVE STATISTICS

Before the analyses, scale scores were computed, and descriptive statistics were investigated. The mean, standard deviations, minimum and maximum for sub-scale scores of the variables are shown in Table 3.1.

In addition, the distribution of each study variable was also examined. A Kolmogorov-Smirnov test was used to test for normality of variables. In addition, to have more insight about the shape of distribution kurtosis, skewness, mean and median were also examined. All variables were approximately normally distributed.

None of the variables had missing values more than 5 %. Missing data was substituted with Median values.

Table 3. 1

Sample Sizes, Mean Scores, Standard Deviations of AMQ, TALE, BPNS, ZTPI

	N	Mean	SD	Min	Max
AMQ					
Relieve	150	5.16	1.40	1	7
Hear	150	5.17	1.54	1	7
See	150	5.65	1.24	1	7
Talk	150	4.51	1.73	1	7
Feel the same now	150	5.22	1.70	1	7
Setting	150	6.09	1.26	1	7
Remember/Know	150	5.87	1.21	1	7
In words	150	4.76	1.57	1	7
Back in time	150	5.19	1.75	1	7
Coherent story	150	5.29	1.70	1	7
Importance	150	6.02	1.33	1	7
Real/imagine	150	6.43	1.12	1	7
Rehearsal	150	4.87	1.59	3	7
Field/Observer	150	5.47	1.41	1	7
Emotional intensity	150	5.91	1.33	2	7
Positive Emotions	150	4.16	2.38	1	7
Negative Emotions	150	4.43	2.19	1	7
Self-defining	150	4.63	1.16	1	6
Vividness	150	5.33	1.21	1	7

Self-continuity Function	150	3.44	0.95	1.2	5
Social-bonding Function	150	2.65	1.01	1	5
Directive Function	150	3.22	0.94	1	5
TALE Total Function	150	3.10	0.79	1.3	5
BPNS					
Autonomy	150	3.64	0.59	2.3	4.9
Competence	150	3.49	0.64	5	5
Relatedness	150	3.94	0.65	2.1	5
ZTPI					
Past Positive	150	3.49	0.83	1.44	4.89
Past Negative	150	3.16	0.78	1.1	5
Present Hedonistic	150	3.41	0.50	1.87	5
Present Fatalistic	150	2.56	0.63	1.22	5
Future	150	3.56	0.53	1.69	4.77
DBTP	150	2.40	0.83	0.9	4.8

3.2. ASSOCIATONS BETWEEN TIME PERSPECTIVE AND CHARACTERISTICS OF SELF-DEFINING MEMORY

One of the hypotheses of this study was that there would be correlations between characteristics of self-defining memory and time perspective. To test the hypothesis Pearson correlation analyses was conducted between AMQ and ZTPI sub-scales. The result of correlation analysis is shown in Table 3.2.

Table 3. 2

Correlations between Time Perspective and Characteristics of Self-Defining Memory

	Past Positive	Past Negative	Present Hedonistic	Present Fatalistic	Future	DBTP
Relieve	.16	.11	.05	.06	.09	.01
Hear	.11	.04	.08	.07	.02	-.01
See	.16	.01	.06	.04	.10	-.05
Talk	.11	.19*	.13	.13	.11	.04
Feel the same now	.01	.15	.13	.03	.08	.07
Setting	.16	.03	.10	-.03	.05	-.04
Remember/ Know	.14	.07	.03	.03	.09	-.02
in words	.08	.05	.08	.02	.16	.01
Back in time	.17*	.16	.01	.08	.01	.01
Coherent story	.17*	.02	.12	-.03	.18*	-.09
Importance	.02	.04	.11	.06	.03	.01
Real/imagine	.12	.02	.10	-.08	.19*	-.11
Rehearsal	.15	.11	.11	.20*	.07	.04
Field-Observer	.22**	.09	.09	.06	.05	-.07
Emotional intensity	.12	.10	.07	.01	.12	-.02
Positive Emotions	.25**	-.24**	.10	.15	-.01	-.17*

Negative emotions	-.22**	.33**	-.02	.07	-.02	.27**
Self-defining	.03	-.02	-.01	.17*	.20*	.02
Vividness	.16*	.06	.08	.06	.07	-.02
AMQ general	.20	.13	.14	.11	.15	-.01

*$p < 0.05$, **$p < 0.01$

It was hypothesized that Balanced time perspective would be positively correlated with positive emotions and negatively correlated with negative emotions (Hypothesis 1a). A low score on DBTP indicates that individual has a more Balanced time perspective. As hypothesized, a positive correlation between Balanced time perspective and positive emotions was observed, ($r = -.17$; $p = 0.033 < 0.05$). In addition, a negative correlation between Balanced time perspective and negative emotions was also observed ($r = .27$; $p = 0.001 < 0.05$). No other significant relationship was observed with other AMQ variables.

Regarding second hypothesis it was expected that a Past Positive time perspective would correlate positively with emotional intensity, positive emotions, coherence, rehearsal, real/imagine, remember/know, vividness and negatively correlate with negative emotions (Hypothesis 1b). Past Positive time perspective had a positive correlation with field vantage point ($r = .22$; $p = 0.007 < 0.01$), positive emotions ($r = .25$; $p = 0.002 < 0.01$), vividness ($r = .16$; $p = 0.049 < 0.05$); back in time ($r = .17$; $p = 0.035 < 0.05$), coherent story ($r = .17$; $p = 0.037$, $p < .05$); and correlated negatively with negative emotions ($r = -.22$; $p = 0.006 < 0.01$). There was no other correlation observed between past positive time perspective and AMQ variables.

Regarding the third hypothesis it was expected that Future time perspective would correlate with vividness and coherence (Hypothesis 1c). Results indicated that Future correlated with coherent story ($r = .19$; $p = 0.022 < 0.05$) and real-

imagine (r = .19; p = 0.022 < 0.05) and contrary to our expectation with self-defining (r = .20; p = 0.016 < 0.05).

Fourth hypothesis expected that Past Negative and Present Fatalistic time perspectives would be negatively associated with vividness, narrative coherence, positive emotions and positively associate with negative emotions, feel the same now rehearsal, importance, and self-defining (Hypothesis 1d). Results indicated a positive association between Past Negative and talk (r = .19; p = 0.024 < 0.05), Past Negative and negative emotions (r = .33; p = 0.000 < 0.01); and a negative association between Past Negative and positive emotions (r = -.24; p = 0.003 < 0.01). Present Fatalistic presented a different picture than Past Negative. Different than Past Negative, Present Fatalistic time perspective correlated positively with rehearsal (r = .19; p = 0.021 < 0.05) and self-defining (r = .17; p = 0.040 < 0.05).

Fifth it was expected that Present Hedonistic TP would correlate positively with positive emotions and feel the same now; negatively correlate with negative emotions (Hypothesis 1e). None of the expected correlations were observed (p > .05).

To further evaluate the relationship between time perspectives and autobiographical memory and to facilitate our planned mediational analyses, AMQ data set (18 variables) was reduced to a single variable in line with Ely and Mercurio study (2012). Correlation coefficients between this general AMQ score and ZTPI are presented in Table 5. Accordingly, Past Positive correlated positively with general AMQ scores (r = .20; p = 0.015 < 0.05). While strength of correlations is weak the result indicates that a past positive time perspective is associated with AMQ general score.

3.3. ASSOCIATONS BETWEEN TIME PERSPECTIVE AND FUNCTIONS OF SELF-DEFINING MEMORY

It was hypothesized that there would be correlations between functions of self-defining memory and time perspective. To test the hypothesis, Pearson

correlation analyses was conducted between TALE and ZTPI sub-scales. The result of correlation analysis is shown in Table 3.3.

Table 3. 3

Correlations between Time Perspective and Functions of Self-Defining Memory

TALE	Past Positive	Past Negative	Present Hedonistic	Present Fatalistic	Future	DBTP
Self-Continuity Function	.16	.01	.06	.08	.20*	-.04
Social Function	.18*	.02	-.06	.16*	. 19*	.03
Directive Function	.15	-.02	.10	.15	. 30**	-.07

Note: * $p < .05$; ** $p < .01$

It was hypothesized that Future time perspective would be positively associated with Directive function in TALE (Hypothesis 1f). As hypothesized a positive correlation was observed between Future TP and Directive function (r = .30; p = 0.001, p <0.01). Furthermore, Future TP also correlated positively with Self-continuity (r = .20; p = 0.014 < 0.05) and Social function (r = .16; p = 0.014 < 0.05) and with TALE total function score (r = .28; p = 0.001 < 0.01).

Our hypothesis that there would be a positive correlation between directive function and Past Negative was not confirmed. Past Negative did not correlate with TALE subscales (Hypothesis 1g). In addition, although we did not hypothesize there was a correlation between Past Positive and TALE total function (r = .18; p = 0.025 < 0.05) and Social function (r = .18; p = 0.031 < 0.05). In addition, contrary

to our hypothesis Present fatalistic TP correlated positively with Social function (*r* = .16; *p* = 0.049 < 0.05).

3.4. ASSOCIATIONS BETWEEN BASIC PSYCHOLOGICAL NEEDS AND TIME PERSPECTIVE

One of the aims of this study was to replicate the findings regarding the links between time perspective and basic psychological needs. The result of correlation analysis is shown in Table 3.4.

Table 3. 4

Pearson correlation coefficients between BPNS and ZTPI

BPNS	Past Positive	Past Negative	Present Hedonistic	Present Fatalistic	Future	DBTP
Autonomy	. 51**	-.54**	.15	-.32**	.16	-.62**
Competence	. 21*	-.38**	.10	-.24**	.27**	-35**
Relatedness	. 44**	-.43**	. 18*	-.15	.12	-.50**

Note: * $p < .05$; ** $p < .01$

Results replicated Akırmak et al.'s (2019) finding that Balanced time perspective correlated positively with need satisfaction**.** DBTP correlated negatively with Competence (*r* = -.35; *p* = 0.000 < 0.01), with Autonomy (*r* = -.62; *p* = 0.000 < 0.01) and with Relatedness (*r* = -.50; *p* = 0.000 < 0.01). Similarly, Past Positive correlated positively with Relatedness (*r* = .44; *p* = 0.000 < 0.01), with Autonomy (r = .51; p = 0.000 < 0.01) and with Competence (*r* = .21; *p* = 0.012 < 0.05). In addition, Past Negative correlated negatively with need satisfaction. Past negative correlated negatively with Competence (*r* = -.38; *p* = 0.000 < 0.01), with Autonomy (*r* = -.54; *p* = 0.000 < 0.01), with Relatedness (*r* = -.48; *p* = 0.000 < 0.01). Also, it was found that, Present Fatalistic time perspective correlated

negatively with need satisfaction. Present Fatalistic correlated negatively with Competence (r = -.24; p = 0.004 < 0.01) and with Autonomy (r = -.58; p = 0.000 < 0.01). There was no negative correlation between present fatalistic and relatedness. Future TP correlated with competence needs (r = -.28; p = 0.001 < 0.01). Additionally, our results indicated that Present Hedonistic time perspective correlated positively with Relatedness (r = .18; p = 0.029 < 0.05).

3.5. ASSOCIATONS BETWEEN TIME PERSPECTIVE AND NARRATIVE CHARACTERISTICS OF SELF-DEFINING MEMORY

The majority of the self-defining memories were coded as specific (72.7 %); integrative (57.3%); and negative (62.7). Distribution of sample in terms of specificity, integration and affect regarding self-defining memories is presented in Table 3.5.

Table 3. 5

Distribution of Specificity, Integration and Affect Regarding Self-Defining Memories

		N	%
Specificity	Specific	109	73
	Non-specific	41	27
Integration	Integrative	86	57.3
	Non-integrative	64	42.6
Affect	Positive	48	32
	Negative	102	68

One of the aims of this study was to explore the relationship between narrative characteristics of self-defining memory and time perspective. One of our hypotheses was that there would be a negative association between specificity and

past negative time perspective. To test the hypothesis and to explore the relationship between narrative dimensions of specificity, integration, affect and ZTPI sub-scales independent sample t test was conducted.

Hypothesis that Past Negative time perspective would be associated with less specific memories was not confirmed. In fact, although not significantly different, mean score for specific memories (M = 3.20, SD = 0.753) was greater than non-specific memories (M = 3.03, SD = 0.856) among Past Negative.

The only significant difference concerning specificity, integration, and affect for ZTPI subscales were among Past Negative and DBTP regarding affect dimension. There was a significant difference in the scores for Past Negative for positive affect (M = 3.65, SD = 0.647) and negative affect (M = 3.41, SD = 0.893) conditions t(148) = 2.822, p = 0.005). Past Negative time perspective was associated with more negative affect in content of self-defining memories. Also, there was a significant difference in the scores for DBTP for positive affect (M = 2.18, SD = 0.684) and negative affect (M = 2.51, SD = 0.876) conditions t(148) = 2.269, p = 0.025. DBTP was associated with higher negative affect in the content.

In summary, results of correlation analysis indicate that Past Positive correlated with 6 AMQ variables as back in time, coherent story, field/observer, positive emotions, negative emotions, and vividness. Past Negative correlated with talk, positive and negative emotions. Present Hedonistic was not a predictor of AMQ according to the results. Present Fatalistic correlated with rehearsal and self-defining. Future correlated with coherent story, real/imagine and self-defining and lastly DBTP correlated with positive and negative emotions. Valence of emotions and field-observer ratings correlated at a p value of .01 and others correlated at .05. In addition, Past Positive and Present Fatalistic correlated with social function and Future correlated with all three functions in TALE. Lastly regarding basic psychological needs, both Past Positive and DBTP correlated positively with all three needs; Past Negative correlated negatively with all three needs; Present Fatalistic correlated negatively with autonomy and competence needs and Future correlated with competence and Present Hedonistic correlated with relatedness need only. Regarding narrative characteristics of self-defining memories both Past

Negative and DBTP were associated with more negative affect in content. However, specificity and integration did not differentiate significantly.

3.6. MEDIATING ROLE OF BASIC PSYCHOLOGICAL NEEDS ON THE RELATIONSHIP BETWEEN TIME PERSPECTIVE AND SELF-DEFINING MEMORY

Twelve mediational models were tested with the interest to test the effect of time perspective on self-defining memories. Two separate sets of mediational analysis were conducted. In the first set of analysis characteristics of self-defining memories (AMQ) was the dependent variable and in the second set of analysis functions of self-defining memories (TALE) was dependent variable. Predictors were Past Positive, Past Negative, Present Hedonistic, Present Fatalistic, Future, Deviation from Balanced Time Perspective (DBTP). Mediating variables were Autonomy, Competence, Relatedness. Mediation analyses were conducted using PROCESS V3.4 (Hayes, 2018) with the application of the bootstrapping method to display a 95% confidence interval of the indirect effect.

In the first set of analysis the general AMQ score was the dependent variable, autonomy, competence, and relatedness were the mediating variables and ZTPI subscales were independent variables. Test of mediation were conducted to test whether any of the three subtypes of basic psychological needs mediate the relationship between domains of time perspective and AMQ general score. A summary of the models regarding the total and indirect effects can be seen in Table 3.6.

Table 3. 6

Mediation Analysis of Relationship Between Time Perspective and Self-Defining Memory Characteristics (AMQ) through Basic Psychological Needs Dimensions

		Total			Direct Effect of Past Positive on AMQ			Indirect Effect of Mediation		
DV	MV	B	SE	95% CI	B	SE	95% CI	B	SE	95% CI
Past Positive	Autonomy	0.20	0.08	0.047 to 0.346	0.14	0.09	-0.038 to 0.319	0.01	0.05	-0.092 to 0.122
	Relatedness							0.04	0.05	-0.049 to 0.130
	Competence							0.00	0.02	-0.041 to 0.042
					Direct Effect of Past Negative on AMQ					
Past Negative	Autonomy	0.14	0.08	-0.030 to 0.302	0.35	0.10	0.157 to 0.538	-0.13	0.07	**-0.259 to -0.002**
	Relatedness							-0.07	0.05	-0.166 to 0.019

	Competence							-0.007	0.037	-0.079 to 0.066
					Direct Effect of Present Hedonistic on AMQ					
Present Hedonistic	Autonomy	0.23	0.13	-0.030 to 0.492	0.18	0.13	-0.081 to 0.443	0.02	0.03	-0.036 to 0.077
	Relatedness							0.03	0.03	-0.035 to 0.099
	Competence							-0.00	0.02	-0.036 to 0.030
					Direct Effect of Present Fatalistic on AMQ					
Present Fatalistic	Autonomy	0.15	0.10	-0.058 to 0.354	0.23	0.11	0.020 to 0.447	-0.06	0.05	-0.160 to 0.032
	Relatedness							-0.02	0.02	-0.064 to 0.024
	Competence							-0.001	0.03	-0.059 to 0.056
					Direct Effect of Future on AMQ					
Future	Autonomy	0.23	0.12	-0.019 to 0.473	0.20	0.13	-0.049 to 0.455	0.02	0.03	-0.034 to 0.077

	Relatedness							0.02	0.03	-0.026 to 0.075
	Competence							-0.02	0.04	-0.105 to 0.061
					Direct Effect of DBTP on AMQ					
DBTP	Autonomy	-0.00	0.08	-0.163 to 0.153	0.178	0.101	-0.021 to 0.376	-0.11	0.07	-0.262 to 0.033
	Relatedness							-0.07	0.052	-0.175 to 0.027
	Competence							.006	0.033	-0.059 to 0.071

Note. Statistical measures for significant mediations are marked in bold type.

It was expected that any of the psychological need subscales would mediate the relationship between time perspective and characteristics of self-defining memories. Hypothesis was partially supported in that autonomy mediated the relationship between Past Negative time perspective and AMQ. Coefficients are presented in Figure 3.1 where path a is the effect between independent variable (PN) and mediator variable (Autonomy, Relatedness, Competence); path b is the effect between mediator variable and dependent (AMQ) variable. The direct effect *c*' is the effect of Past Negative on AMQ excluding the effect of mediators. The indirect effect, ab, is the effect of PN on AMQ through mediators. It is the multiplication of path and path b. Path c is total effect of Past Negative on AMQ, sum of direct and indirect effects.

The mediation analysis for Past Negative and AMQ indicates a significant indirect effect through Autonomy. Confidence interval indicates that PN influences negatively self-defining memory characteristics through satisfaction of need for Autonomy (-0.259 to -0.002) as confidence interval does not include zero (see Table 3.6.). The indirect effect of Autonomy was statistically different from zero (a_1b_1= 0.131) with a 95% confidence interval (from -0.259 to -0.002). Higher levels of Past Negative leads to lower levels of satisfaction of need for autonomy (a1= -0.41) which in turn impact on AMQ characteristics (b1= 0.32).

The indirect effects through other mediator dimensions were not significant since their confidence interval includes zero.

In the second set of analyses, the general TALE score was the dependent variable; autonomy, competence and relatedness were the mediating variables and ZTPI subscales were independent variables. A summary of the models regarding the total and indirect effects can be seen in Table 3.7. No significant indirect effect of psychological needs on TALE was found as confidence intervals for indirect effect includes zero.

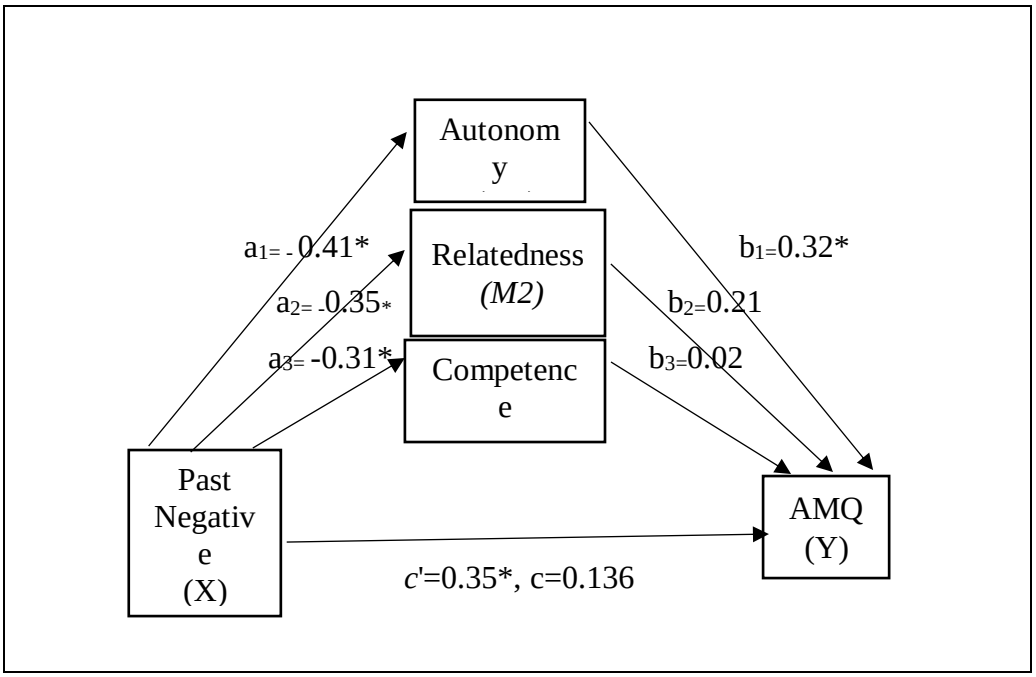

Figure 3. 2 Mediation Effect between Past Negative and AMQ through Autonomy

Twelve mediational models were tested in this study for testing two hypotheses. Of the models tested, only one model in which Past Negative was independent variable, AMQ total score was dependent variable and autonomy was mediator revealed significant indirect effect of mediator. Results indicated that there was a negative relationship between Past Negative and Autonomy and there was a positive relationship between Autonomy and characteristics of self-defining memories. Regarding our second mediation hypothesis, basic psychological need variables did not have an indirect effect on the relationship between time perspective and functions of self-defining memories.

Table 3. 7

Mediation Analysis of Relationship Between Time Perspective and Self-Defining Memory Functions (TALE) through Basic Psychological Needs Dimensions

		Total			Direct Effect of Past Positive on TALE			Indirect		
DV	M	B	SE	95% CI	B	SE	95% CI	B	SE	95% CI
Past Positive	Autonomy	0.17	0.08	0.024 to 0.324	0.13	0.09	-0.048 to 0.309	0.02	0.06	-0.089 to 0.134
	Relatedness							0.01	0.04	-0.081 to 0.096
	Competence							0.01	0.02	-0.025 to 0.053
					Direct Effect of Past Negative on TALE					
Past Negative	Autonomy	0.02	0.08	-0.140 to 0.182	0.17	0.096	-0.014 to 0.364	-0.1	0.06	-0.224 to 0.028
	Relatedness							-0.03	0.04	-0.119 to 0.058
								-0.03	0.04	-0.099 to 0.047

	Competence									
					Direct Effect of Present Hedonistic on TALE					
Present Hedonistic	Autonomy	0.06	0.13	-0.190 to 0.316	0.02	0.129	-0.237 to 0.270	0.02	0.03	-0.032 to 0.082
	Relatedness							0.01	0.3	-0.046 to 0.073
	Competence							0.09	0.2	-0.026 to 0.042
					Direct Effect of PF on TALE					
Present Fatalistic	Autonomy	0.2	0.1	0.002 to 0.396	0.302	0.104	0.099 to 0.505	-0.08	0.05	-0.170 to 0.018
	Relatedness							-0.01	0.02	-0.041 to 0.033
	Competence							-0.02	0.03	-0.080 to 0.034
					Direct Effect of Future on TALE					

Future	Autonomy	0.42	0.117	0.188 to 0.647	0.4	0.121	0.155 to 0.628	0.02	0.03	-0.030 to 0.077
	Relatedness							0.010	0.02	-0.029 to 0.049
	Competence							-0.008	0.04	-0.085 to 0.069
					Direct Effect of DBTP on TALE					
DBTP	Autonomy	-0.03	0.08	-0.178 to 0.125	0.13	0.098	-0.064 to 0.320	-0.10	0.07	-0.247 to 0.037
	Relatedness							-0.03	0.05	-0.129 to 0.063
	Competence							-0.02	0.03	-0.080 to 0.047

Note. Statistical measures for significant mediations are marked in bold type.

3.7. DISTRIBUTION OF CURRENT GOALS AMONG THE SAMPLE

Our last area of interest was about a possible relationship between pursued current goals of participants and time perspective. Each participant gave a different number of goals and participants were not asked to rate their goals based on relevant measures to our purposes. It was not deemed reasonable to put widely distributed motive clusters into analysis. Therefore, the list of goals was not included in the analysis and instead were coded according to Talevich et all' (2019) goal taxonomy and were given as a descriptive data. The distribution of the sample is presented in Table 3.6.

The most frequently reported motive among the sample was intellectual competence (%24.9) followed by self-fulfilling (%12.6); ambition and ability (% 12) and financial and occupational success (%11.1). None of the participants reported X1, Morals and Values in the referred taxonomy.

Table 3. 8

Distribution of current goals among participants

	N	%
Virtues	21	6
Self-fulfilling	44	12.6
Openness to experience	31	8.9
Self-protection	9	2.6
Security and belonging	34	9.7
Health	20	5.7
Family	23	6.6
Ambition and ability	42	12.0
Intellectual competence	87	24.9
Financial and occupational Success	39	11.1
Total	350	100

CHAPTER 4
DISCUSSION

Our question in current study was to examine the relationship between time perspective and self-defining memories and their relationship with goals.

To my knowledge this is the first study to investigate 1) how phenomenological characteristics of self-defining memories differ from each other depending on different time perspectives; 2) how functional use of self-defining memories differ from each other depending on time perspective; 3) whether there is a mediating role of basic psychological needs on the relationship between time perspective and self-defining memories. Results indicated that individual differences in time perspectives were associated with different aspects of characteristics and functions of self-defining memories. It must be emphasized that although the correlations were generally weak the links between valence and Past Positive, Past Negative and Balanced time perspective were persistent. Hypotheses that basic psychological needs would mediate the relationship between time perspective and characteristics and functions of self-defining memory was supported in that satisfaction of autonomy mediated the relationship between Past Negative and characteristics of self-defining memory.

4.1. TIME PERSPECTIVE AND CHARACTERISTICS OF SELF-DEFINING MEMORY

The first main hypothesis of the current study addressed the association between time perspective and characteristics of autobiographical memory, specifically, ZTPI subscales; Past Positive, Past Negative, Present Hedonistic, Present Fatalistic, Future, DBTP, and AMQ variables. Hypotheses 1a, 1b, 1c, 1d, 1e expected specific correlations between different time perspectives and AMQ variables. Some of the results revealed partial support for our hypotheses.

4.1.1. Balanced Time Perspective and Characteristics of Self-Defining Memory

The findings regarding Balanced time perspective supported hypothesis that Balanced time perspective would be associated with valence of self-defining memories. BTP positively associated with positive memories and negatively associated with negative memories. Our results suggest that BTP might be a predictor of valence associated with self-defining memories. However, there was no other relationship between Balanced TP and AMQ variables. One explanation for the results could be that BTP is measured as generated variable via a statistical formula rather than as a continuum. Other time perspectives are self-rated by participants whereas BTP is a computed variable.

4.1.2. Past Positive Time Perspective and Characteristics of Self-Defining Memory

The findings regarding Past Positive time perspective supported the relationship between Past Positive and six variables in AMQ. Field-observer, positive emotions, negative emotions, vividness, coherent story, back in time.

Field or first-person perspective is highest rating among the others that individuals with a Past Positive orientation gave. In addition, they were more likely to give positive emotion ratings when recollecting their memory. It could be that individuals with a past positive time perspective have a stronger representation of the experience or else since they are more inclined to recollect positively associated memories, higher field ratings are merely a function of the fact that positive memories are remembered from a field perspective. Vantage point refers to whether the memory is remembered from the observer point of view or field perspective. (Nigro and Neisser, 1983). Observer memories are remembered as an "observer might see it" and, field memories are remembered "from the original point of view" that is, from the first-person perspective. Nigro and Neisser (1983) reported that vantage point occurs usually automatically and that field memories are most common for recent events whereas observer memories are more common for distant past as childhood events. McIsaac and Eich (2002) found that field memories are

associated with remembering more emotional details whereas observer memories are associated with more objective features of the event. Robinson and Swanson (1993) found that changing from field to observer perspective was associated with reported decrease in emotional intensity. Berntsen and Rubin (2006) suggested that it could be that observer perspective often acts as a defense in the face of recollecting traumatic memories. Potheegadoo et al. (2013) found that patients with schizophrenia report significantly fewer field perspectives than control participants. Williams and Moulds (2007b) have shown that observer memories are associated more rumination, an avoidant coping style. The results in current study could be in line with cited studies in that, participants with a positive attitude toward past are hypothetically less likely to have an avoidant coping style associated with observer memories or dissociation in clinical terms.

Individuals with Past Positive also reported their memories to be more emotionally positive, vivid, and linguistically coherent. They gave higher ratings of back in time, they were less likely to report their memories as emotionally negative.

Our expectation was that a past positive time perspective would correlate with more memory characteristics since it is reasonable to expect that remembering past from a positive window would be associated with enhanced sensory details. For example, vividness refers to how much sensory details individuals remember and events that have significant impact on one's life are recollected vividly (Conway, Singer, & Tagini, 2004). In our study, though correlations are weak results still indicate that past positive is associated with vivid memories which is a variable based on mean of relieve, see and hear. Therefore, we would expect these variables to significantly correlate with past positive also. We must note that, although the correlation is not significant individuals with past positive time perspective gave the highest ratings of relieve, hear, see, remember/know among the other time perspectives. Future studies might be able to test if the low correlations are related to the construct itself or whether the results are related to limitations of the current study.

Past Positive was also associated with coherent story which is a linguistic characteristic. Interestingly this association appears to be restricted to the narrative structure as past positive was not predictive of a tendency to talk about the past.

Another significant correlation was with back in time. Back in time is affectively rich mnemonic experience. Memories that are positively valanced are associated with past positive. Intuitively it is possible to suggest that this habitual positive thinking associated with past positive creates affectively laden pathways that enhance the phenomenological experience of back in time.

4.1.3. Future Time Perspective and Characteristics of Self-Defining Memory

Future time perspective only correlated with three AMQ variables: real/imagine, coherent story, self-defining. It is interesting to note that the participants that are assured most about whether their memories are real (compared to imagined) are the ones who have a Future time perspective. In fact, high ratings of metacognitive judgement of real/imagine means that individuals with Future time perspective had an intense recall during remembering, however participants in current study did not report strong remembering neither. In addition, other component processes as hear, see, relieve, setting, vividness ratings are not reported to be high. For example, Brewer (1988) indicated that there is a direct link between confidence that memory happened and visual imagery details. We are not clear about reasons why they reported that they are sure that event actually happened, but their imagery ratings are low. One explanation could be related to false memories. Research on false memory (Thomas and Loftus, 2002) and memory confidence indicates that imagery may have a deteriorating impact on memory performance. Van der Kolk and Fisler (1995) indicates that repeatedly imagining an experience may decrease the confidence that event really happened or was imagined. As we stated before self-defining memories are of high importance to self and it is likely that they are repeatedly imagined. In current study, contrary to our expectation, Future is associated with high self-defining ratings also. However, in the case of individuals with Future time perspective we know that they do not have a tendency

to dwell on past as it is the case for past oriented individuals. Therefore, one explanation for their high ratings of real could be that unlike others they are sure that they did not falsely created the memory. Furthermore, they reported high ratings of self-defining which also may contradict with absence of imagery ratings. Because as we hypothesized based on given theories self-defining memories are crucial for the self and they are associated with intense phenomenological quality. One explanation for this result might be related with our design. In current study we directed participants to express only their self-defining memories. Self-defining memory is associated with high ratings of phenomenological qualities. Since we asked to rate a memory that is by definition intense, participants might have desensitized to all the ratings. Future studies could tackle this issue by requiring both self-defining memories and non-self-defining memories at the same study.

4.1.4. Past Negative Time Perspective and Characteristics of Self-Defining Memory

Individuals with a negative attitude towards past, gave higher ratings of talk, negative emotions, and lower ratings of positive emotions. It appears that, contrary to our expectations, "valence", and this fragmented, incoherent scene of people or themselves in "talking" are the only significant correlations between Past Negative time perspective and self-defining memory characteristics. In fact, results are in line with Ely and Mercurio (2012) study on time perspective and autobiographical memory that found past negative was generally unrelated to AMQ. In their study they found that past negative was only modestly and negatively associated with talk about.

Why a positive orientation is associated with relatively richer memories and a negative orientation is associated with a poor quality of memories? In fact, there are many studies indicating the causal relationship between PTSD and intense and vivid flashback memories. A possible explanation for this result might be related with different nature of affect associated with positive and negative time perspectives. It might be that reminiscing with a negative affect creates different habitual patterns that affect the nature of the memory. There are also studies

indicating how traumatic experiences can be associated with absence of recollection during retrieval. For example, amnesia has been observed consistently among traumatized patients (Pierre Janet cited in van der Kolk and Fisler, 1995) and among who have committed murder (Schacter ,1986). For example, Van der Kolk and Fisler (1995) indicate that the affective valence of a memory has a major role in determining what cognitive schemes will be activated. Findings of present study might be modestly expressive in that the results imply how a negative outlook on past can deteriorate quality of memory, nevertheless, more indebt studies are needed to elucidate the different processes attached with affect.

4.1.5. Present Fatalistic Time Perspective and Characteristics of Self-Defining Memory

Present-fatalistic time perspective is associated with "a fatalistic, helpless and hopeless attitude towards the future and life" (Zimbardo & Boyd, 1999); lower arousal (Stolarski et al., 2014) and is indicated to have greatest negative impact on well-being (Thao et al, 2016).

In current study individuals with Present Fatalistic time perspective gave higher ratings of rehearsal and self-defining. Present Fatalistic was not a good predictor of AMQ variables. Only self-defining memory that we expected correlated with Present Fatalistic TP. An explanation for relatively higher rehearsal ratings could be related to involuntary traumatic memories associated with PTSD. Studies indicate that among individuals with PTSD rehearsal of traumatic memory is common (Rubin, Feldman & Beckham, 2004). A recent study indicated that present fatalistic individuals were more prone to emotional reactivity and were less adaptive in coping with trauma that result in PTSD (Stolarski and Cyniak-Cieciura 2016). It could be that present fatalism that is the most dysfunctional attitude toward time has overlapping patterns with PTSD symptoms. Therefore, they rehearse those traumatic memories more than others. In addition, their ratings of high self-defining to those events might be another indication that adds to their dysfunctional patterns.

4.2. TIME PERSPECTIVE AND FUNCTIONAL USE OF SELF-DEFINING MEMORY

Assuming individual differences can impact on functional use of memories we aimed to address whether time perspective could have an impact on how and why one uses their self-defining memories.

Our hypothesis that future time perspective would be associated with use of self-defining memories for directive functions was supported. Future time perspective was also associated with use of memories for self-continuity and social-bonding functions. Among the others, individuals with Future time perspective used their self-defining memories most in terms of their functional use.

People use their memories to avoid repeating the same mistakes they did in the past. Many studies have found that a negative past orientation is associated with directive use of autobiographical memory (Vranic et all. 2018). In current study, participants were younger adults, therefore it was expected that they would use their memory for more directive purposes as Bluck and Alea (2009) found. However, our hypotheses that individuals with a negative view of past would use their self-defining memory more often to serve for directive function was not confirmed. In fact, Past Negative did not correlate with any of the functional uses of memory. We have no explanation for the result, but a tentative guess could be that past negative participants were so overwhelmed by their own self-defining memory that they kept a psychological distance from the possible functions of it. Another explanation could be that younger participants did not have the time or chance to digest the negative affect of memory so that it could be functional.

Furthermore, we expected that Present Fatalistic time perspective would be associated with a less functional use of memory but contrary to our expectations Present Fatalistic associated with use of memories for social function. Interestingly, our hypothesis regarding Present Fatalistic individuals' need for relatedness was not confirmed neither. Although, the correlations were still negative they were more likely to be able to satisfy their needs for relatedness. Present Fatalistic individuals seem to have a common ground on both TALE's social function use and BPNS's relatedness need. Both, social function, and relatedness constructs share a need for

communication. Therefore it is possible to indicate that although they have a fatalistic view of past, present and future, our sample is able to use their self-defining memories in terms of their social functions and also they are less likely to have been frustrated in terms of their need for relatedness.

Our hypothesis that individuals with a Future time perspective would use their self-defining memory more often for directive function was confirmed. Future time perspective additionally was associated with self and social functions. Our results are line with Bluck and Alea's (2011) study on future orientation and functions of autobiographical memories. Results of their study indicated significant correlation between the directive function subscale and future orientation while results of our study indicated that Future TP correlated with all three functions. The strongest correlation was between Future and directive function.

Our hypothesis that Balanced time perspective would be correlated with functions was not confirmed. On the other hand, Past Positive correlated with only social function. We do not have a clear explanation for this, further research is required on how and why individuals with Balanced time perspective use their self-defining memory.

From the correlations Future time perspective seems to be most relevant construct. A possible explanation for this could be developmental stage that the participants of the study are in. Bluck and Alea (2009) indicate that younger adults report more frequent use of autobiographical memory to create self-continuity and direct behavior. Younger adults face many developmental dilemmas for the first time and have little experience. Their perception of future is much vaguer and longer than older adults and therefore they need more guidance. (Bluck and Alea, 2009). It is important to note that our participants were young adults and clearly those young adults whose time perspective were future oriented seem to use their self-defining memories most efficiently.

4.3. TIME PERSPECTIVE AND BASIC PSYCHOLOGICAL NEEDS

We attempted to replicate findings by Akırmak et al. (2019) that time perspective would be associated with satisfaction of basic psychological needs for autonomy, competence, and relatedness. Past Negative attitude was associated with lower degree of satisfaction for autonomy, competence and relatedness and correlations were fairly strong. Similarly, individuals with a fatalistic view of present were also less likely to have satisfied their needs for autonomy and competence. But contrary to our expectations Present Fatalistic time perspective's negative association with relatedness was not significant. It appears that individuals with Past Negative and Present Fatalistic differed in terms of frustration of their needs for relatedness. Considering Past Negative time perspective's moderate negative association with relatedness it seems that present fatalistic individuals are more likely to satisfy their needs for relatedness while past negative individuals are worst in terms of satisfying their all three needs. One tentative explanation for the results can be that, an excessive negative focus on present as it is typical in present fatalistic and present hedonistic time perspectives is also associated with negative emotions and depression (Wills et al., 2001) and engaging in risky sexual practices (Rothspan and Read, 1996). This apparent satisfaction of relatedness among individuals with present fatalistic time perspective could be related to their acts of seeking immediate gratification in terms of relatedness. Similarly, individuals with Present Hedonistic time perspective were also likely to have satisfied their needs for relatedness supporting this hypothetical explanation about links between present focus and relatedness. Relatedness was only significant correlation that individuals with Present Hedonistic time perspective had among others, and it was weak. It could be that a focus on present can increase likelihood of satisfying relatedness needs contrary to a past negative focus. In summary, both Past Negative and Present Fatalistic time perspectives are associated with frustration in terms of basic psychological needs for autonomy, competence and relatedness.

Our results replicated the findings by Akırmak et al. (2019) study that individuals that have Past Positive and Balanced time perspective are more likely

to have satisfied their basic needs for autonomy, competence and relatedness and that Balanced time perspective have the strongest correlations. Deci and Ryan (2000) in their self-determination theory indicate that satisfaction of autonomy, competence, and relatedness needs are linked directly to well-being. Balanced time perspective is crucial to optimal functioning (Zimbardo and Boyd, 1999) and wellbeing is achieved through Balanced Time Perspective (Boniwell and Zimbardo, 2004). Correlations between DBTP scores and needs were negative and fairly strong. Satisfaction of autonomy was lowest as BDTP scores increased. In other words, individuals with Balanced time perspective were highly likely to have satisfied their needs for autonomy. Similarly, correlations were also observed among past positive individuals. Past positive and Balanced time perspective differed only in terms of competence. Both correlated with competence but correlations between Balanced time perspective and competence were stronger, possibility indicating how integration of a Future perspective in Balanced time perspective increases satisfaction of competence needs in comparison to past positive.

Future time perspective also correlated with satisfaction of need for competence. Zimbardo and Boyd (1999), indicated that individuals with a more future-oriented outlook are more optimistic and anticipate positive outcomes and this is associated with higher functioning and academic achievement. There was no correlation between Future time perspective, relatedness, and autonomy. One possible explanation for this might be that an overemphasis on future aspirations and goals may compromise spontaneity and switching between different time perspectives as Boniwell and Zimbardo (2003) suggested; and this might in turn compromise need for relatedness and autonomy.

In sum, current study replicated the findings regarding the link between time perspective and self-determination theory by indicating the links between different time perspectives satisfaction or frustration of needs.

4.4. TIME PERSPECTIVE AND NARRATIVE CHARACTERISTICS OF SELF-DEFINING MEMORY

It was expected that Past Negative and Present Fatalistic time perspective would be associated with less specific and negative self-defining memories, whereas past positive would be associated with more specific and positive self-defining memories. The only significant difference in terms of specificity, affect and integration among different time perspectives was between Past Negative and affect, and DBTP and affect. Both PN and DBTP were associated with negative affect. Results are in line with self-reports of AMQ measures. However, hypothesis regarding specificity was not supported. In fact, means of specific memories were slightly higher than non-specific memories for Past Negative and Present Fatalistic and means of non-specific were slightly higher than specific for Past Positive time perspective. It appears that individuals with Past Negative time perspective were slightly more likely to retrieve specific details of their memories. One explanation for these results could be that Past Negative individuals with an excessive focus on past, remember every detail associated with a negative self-defining memory that increases their vulnerability for depression. However, while Past Negative is indicated to be associated with depression it could be just a path leading to depression. Before the incidence of depression that is associated with overgeneral memory and rumination, it could be that an excessive focus on specific details about negative memories could be prevalent, become a ruminative cycle and in turn with other factors contributing to incidence and progress of depression associated with overgeneral memory.

4.5. TIME PERSPECTIVE, BASIC PSYCHOLOGICAL NEEDS AND SELF-DEFINING MEMORY

The third hypothesis addressed in the present study was the interaction between the time perspective, satisfaction or frustration of basic psychological needs, and characteristics and functions of self-defining memories. We expected that any of

the dimensions of need for autonomy, competence and relatedness would mediate the relationship between time perspectives (Past Positive, Past Negative, Present Hedonistic, Present Fatalistic, Future, DBTP) and 1) AMQ, 2) TALE. Results revealed an indirect effect of autonomy on the relationship between Past Negative and AMQ general score.

The results of mediation tests in current study indicated that satisfaction of need for autonomy mediates the relationship between Past Negative time perspective and self-defining memory characteristics. To put it in another way, individuals with a negative attitude towards past (Past Negative) are more likely to feel like they are not capable of achieving their goals and overcoming difficulties which leads to an increase in their ratings for self-defining memory characteristics; in other words, Past Negative is able to influence AMQ through autonomy. The results are suggestive in terms of indicating the impact of autonomy on the relationship between time perspective and characteristics of self-defining memory.

In the present study autonomy, rather than relatedness and competence was observed as the only mediator between past negative and AMQ. Why only autonomy and no other needs had a mediating role? A possible explanation for the results could be related to the acquisitions in other needs through satisfaction of autonomy. Deci and Ryan (2000) indicates that phenomenological experience of autonomy reflects a volition and a sense of choice about what one is doing, and satisfaction of autonomy is closely related to competence and relatedness. They indicate that when someone is satisfied in terms of their need for autonomy, they typically behave in ways that brings relatedness and competence also. This explanation could mean that when autonomous feel is absent then competence and relatedness might also be absent. Results about predictive power of autonomy are in line with Akırmak et al.'s (2019) study in that their study also showed that relatedness was not a predictor for Balanced time perspective, but it was autonomy.

Regarding the encapsulating efficiency of autonomy on other needs our results indicate that without autonomy competence and relatedness do not show an indirect effect. For example, it is noted that the total effect of direct and indirect effect on AMQ is significant and positive but, indirect effects associated with competence,

relatedness and autonomy are insignificant. It could be that each need by itself is not influential enough to mediate the relationship between PP and AMQ, but a combined effect of them has more power.

4.6. CLINICAL IMPLICATIONS

Autobiographical memories are central to psychoanalysis. Freud's work and theory are based on autobiographical memories. Freud interpreted failures of memory, such as amnesia and slip of the tongue in terms of motivations. That is the negative affect associated with those memories is the reason for them to be forgotten. Clearly, as indicated before, continuity of self is important when remembering. If the goal for continuity demands for forgetting than amnesia could be present.

Psychotherapeutic alliance requires that therapist is able to understand dispositional characteristics that patient tends to have. A habitual positive or negative stance towards past, present, or future can impact and interact with the early memories that are in the very heart of psychotherapy. The focus in psychodynamic psychotherapy is on unconscious processes however we note that acknowledging of habits that patient "urge" to use persistently can tap on complicated issues that therapist and patient are involved in the room.

Psychoanalytic approach focuses on forgotten memories and autobiographical memory literature that is based on foundations of cognitive psychology emphasizes what is recollected. Nevertheless, both theories do complete each other in terms of understanding how mind works.

Results regarding the correlates of time perspective and characteristics of autobiographical memory could be helpful clinically. For example, Present Fatalistic is associated with increased rehearsal and self-defining ratings. Considering that trauma associated memories are ruminatively rehearsed it could be that present Fatalistic time perspective's increased rehearsal tendencies is an indication of traumatic memories. In terms of Past Positive, increased field-observer ratings indicate that participants with a positive outlook towards past are

at ease with recollecting their memories. Observer memories are associated with distant memories. Clinically, observer memories could be associated with dissociative defense through which individual becomes an observer of him/herself rather than actor. Future studies investigating how different time perspectives differentiate on field-observer ratings could be helpful to understand how time interacts with dissociative tendencies.

Considering the results regarding the relationship between time perspective and satisfaction of needs in the context of emotion regulation strategies could be useful. Emotion regulatory strategies such as higher expressive suppression and lower cognitive reappraisal may be associated with increased psychopathology (Gross & John, 2003). Barsics et all., (2017) in their study on time perspective and cognitive reappraisal found that individuals with a positive outlook in past and future more frequently use cognitive reappraisal to regulate their emotions. They state that ability of these individuals to reconstruct their memories in accordance with their current goals might help them to regulate their emotional stress. Our results partly confirm their findings that individuals with past positive time perspective have higher ratings of satisfaction of their basic psychological needs, while individuals with a past negative time perspective have lower levels of need satisfaction. Not necessarily contrasting, but our findings about individuals with Future time perspective might be an indication that a high level of competence that they face in an academic context might be deteriorating in terms of emotion regulation. On the other hand, it seems that a balanced view of time is associated with more psychological satisfaction and probably emotion regulation.

In summary, dispositional patterns as time perspective can be an issue that therapist-patient alliance can tackle during the psychotherapeutic process. Investigating the links between cognitive foundations of time perspective and how it is related to autobiographical memories could be helpful in terms understanding psychopathology.

4.7. LIMITATIONS AND FUTURE DIRECTIONS

Due to correlational nature of the current research design, it must be acknowledged that the links between the stated constructs are not causal. However, the fact that time perspective has a dispositional character and that individual differences in time perspective account for differences in character and function of self-defining memories; time perspective's role on autobiographical memory was investigated. To our knowledge this is the first study on time perspective and self-defining memories, therefore our hypotheses were correlational and rather explorative. On the other hand, more experimental studies are not needed to deduce causal links.

Ely and Mercurio (2012) reported correlations between the past positive and emotional intensity, rehearsal and real/imagine that we did not observed in our findings. One explanation might be related to design of their studies. Ely and Mercurio (2012) presented participants with seven different memory prompts (e.g: describe your earliest memory, a learning experience, describe a time that you said something and had a positive impact) and then they were asked to complete memory questionnaire. As a result, they had seven memories for each of the participants. In our case, we had one self-defining memory. In addition, they had a larger sample size of equal number of males and females (118 women, 112 men). Therefore, further studies are needed to propose a direct relationship between time perspective and characteristics of autobiographical memories.

Although results indicate some of our hypothesized correlations between time perspective and characteristics of self-defining memories the fact that correlations were generally weak must be emphasized. From our results it is difficult to propose a strong relationship between time perspective and self-defining memory characteristics. Our findings should be regarded as preliminary. Future studies should replicate the findings with more participants considering gender and age differences. The results regarding the relationship between time perspective and basic psychological needs were more robust. Future studies on how frustration of

those needs interacts with time Past Negative time perspective and psychopathology could be enlightening.

The current study initially was operated in a laboratory setting but had to be taken through online survey methodology due to Covid-19 pandemic. Self-defining memory task is to my knowledge administered face to face. Therefore, it should be noted that we were not able to standardize our administration setting which had a negative impact on our procedure. What is more outbreak of pandemic might have deduced anxious patterns in the participants and this might have influenced their time perspective ratings associated with future items.

Other limitation of the current study is that both narrative characteristics of self-defining memories and personal goals were coded by experimenter only. Intercoder reliability was not ensured, therefore objectivity of coding may not be empirically reliable.

Another limitation is related to our request to list current goals. Participants were asked to list their goals in an open-ended way. Lack of standardization in terms of request for current goals was methodologically unfavorable. Future studies should also consider asking participants to rate their goals in terms of attached importance and of relevance of reported self-defining memories to their current goals.

In addition, it must be stated that answering TALE which is a self-report questionnaire requires an insight towards their own remembering process, a metacognitive judgment about to what extend they do so for a specific function. This can be a difficult task. Therefore, it is possible that answers given are not reflective of intended use but instead participants' assumptions about what purpose their memory should serve. Further studies should investigate this issue.

The extent to which results of current study are generalizable must be treated with caution as correlations are weak. In addition, even though engaging in online survey widened the recruitment beyond the student population we did not preferred a wide age range as regards with our aims. Future studies should take consider different age categories.

Finally, although our correlations are weak, it must be considered that the AMQ questions are distinct from the ZTPI items. The AMQ questions ask participants to rate their phenomenological experience of a memory, in addition it requires making metacognitive judgement about their own cognitive processes. In contrast, in the ZTPI there are general statements and participants are asked to rate if the statement characterizes them. Therefore, we believe, even the weak correlation might be expressive as the AMQ and the ZTPI do not overlap in their focus.

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APENDICES

Appendix A: Informed Consent Form

Sayın Katılımcı,

Bu araştırma İstanbul Bilgi Üniversitesi Klinik Psikoloji Yüksek Lisans Programı öğrencisi Arzu Göncü tarafından Dr. Öğr. Üyesi Ümit Akırmak danışmanlığında bir tez çalışması kapsamında yürütülmektedir. Araştırmanın amacı zaman perspektifi ile otobiyografik bellek arasındaki ilişkiyi incelemektir. Sizden geçmiş deneyimlerinizle ilgili bir adet sizi tanımladığınızı düşündüğünüz anı yazmanız ve çeşitli soruları yanıtlamanız istenecektir.

Size yöneltilen soruların doğru veya yanlış cevapları yoktur. Araştırmanın amacına ulaşması için sizden ricamız tüm soruları eksiksiz ve içtenlikle cevaplamanızdır. Yaklaşık 30 dakika sürecek olan bu araştırmada bütün soruları yanıtlamanız oldukça önemlidir.

Bu araştırmada isminiz ve kimlik bilgileriniz gizli tutulmaktadır. Sorulara vereceğiniz yanıtlar üçüncü kişilerle paylaşılmayacaktır. Fakat elde edilen veriler gelecekte başka araştırmalar için de kullanılabilir. Araştırmaya katılmanın üzerinizde olumsuz bir etkisi olması beklenmemektir. Ancak size yöneltilen sorularla ilgili herhangi bir rahatsızlık hissederseniz, cevaplamayı istediğiniz anda bırakabilirsiniz.

Bu araştırmaya katılım tamamen gönüllülük esasına dayanmaktadır. Bununla birlikte çalışmaya katılmayı kabul etmeniz durumunda ders kredisi alacaksınız. Bu formu okuyup onay vermeniz çalışmaya katılmayı kabul ettiğiniz anlamına gelmektedir. Bununla birlikte çalışmanın herhangi bir noktasında **hiçbir gerekçe belirtmeden** çalışmadan çekilebilirsiniz.

Araştırma ile ilgili herhangi bir soru sormak isterseniz lütfen sorun. Daha sonra sorularınız olursa bu çalışmayı yürüten Arzu Göncü'yle (arzu.goncu@bilgiedu.net) adresi üzerinden iletişime geçebilirsiniz. Araştırmaya katkınız için teşekkür ederiz.

Anlatılanları ve yukarıda yazılanları anladım. Bu formun bir kopyasını aldım. Bu çalışmaya katılmayı kabul ediyorum.

Katılımcının adı, soyadı ve imzası:_____

Tarih: _____

Appendix B: Demographic information Form

Cinsiyetiniz: Kadın☐ Erkek ☐Diğer☐

Yaşınız:

Lütfen ilişki durumunuzu belirtiniz:

İlişkim var☐

ilişkim yok☐

Kendinizi aşağıdaki gelir seviyelerinden hangisinde görüyorsunuz?

☐Alt

☐Alt-Orta

☐Orta

☐Orta-Üst

☐Üst

Appendix C: Self-Defining Memory Request

Sizden kendinizi tanımlayan, benliğinizi (kim olduğunuzu) yansıtan bir anı hatırlamanızı ve ardından da ilişikteki anketi doldurmanızı istiyoruz. Bu anı aşağıdaki özelliklere sahip olmalıdır:

o Net bir biçimde hatırladığınız

o Hala önemli bulduğunuz

o Sizde olumlu, olumsuz ya da her iki türden de yoğun duygular uyandıran

o Hayatınızda süregelen bir tema, olay ya da çözülmemiş bir meseleyi içeren

o Sizin bir birey olarak kim olduğunuzu tanımlayan ve sizi yakından tanımasını istediğiniz birine anlatmak isteyebileceğiniz

o Sık sık hatırladığınız

o Benzer bir temayı ya da meseleyi içeren başka anılarla bağlantılı ve onları çağrıştıran

Özetlemek gerekirse, bu anı, yeni tanıştığınız ve kendinizi olduğunuz gibi ve doğru bir şekilde tanıtmak istediğiniz birine anlatabileceğiniz türden, sizin şu andaki siz olmanızda katkısı olmuş bir anıdır. Lütfen bu tanıma uygun ve 1 seneden eski bir anınızı mümkün olduğunca ayrıntılı biçimde yazınız.

Herhangi bir sorunuz varsa şu anda sorabilirsiniz. Sorunuz yoksa, lütfen çalışmaya başlayınız.

Appendix D: Autobiographical Memory Questionnaire (AMQ)

Lütfen yazdığınız birinci anıyı düşünerek, aşağıdaki her ifadeye ne kadar katıldığınızı, 1'den 7'ye kadar size en uygun olan sayıyı işaretleyerek değerlendiriniz. Yazdığınız ilgili anıya geri dönüp bakabilirsiniz

1.Olayı hatırladığımda olayı **yeniden yaşıyormuş** gibi hissediyorum.

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Olay şu anda oluyormuş gibi

2. Olayı hatırladığımda, onu zihnimde **işitebiliyorum.**

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Olay şu anda oluyormuş gibi

3. Olayı hatırladığımda, onu zihnimde **görebiliyorum.**

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Olay şu anda oluyormuş gibi

4. Olayı hatırladığımda ben ya da başka insanlar **konuşuyor.**

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Olay şu anda oluyormuş gibi

5. Olayı hatırladığımda o zaman hissettiğim **duyguları** şimdi de hissedebiliyorum.

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Olay şu anda oluyormuş gibi

6. Olayı hatırladığımda olayın geçtiği **yeri** hatırlayabiliyorum.

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Olay şu anda oluyormuş gibi

7. İnsanlar bazı olayları, detaylarını hatırlamasalar da başlarından geçtiğini bilirler. Ben anımı hatırladığımda bu olayın başımdan geçtiğini bilmekten öte onu gerçekten **hatırlayabiliyorum.**

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Şu anda oluyormuş gibi

8. Olayı **kelimesi kelimesine** hatırlıyorum.

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Şu anda oluyormuş gibi

9. Olayı hatırladığımda olayın **olduğu zamana geri döndüğümü** ve olayı dışardan seyreden biri değil, olaya yeniden doğrudan katılan biri olduğumu hissediyorum.

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Şu anda oluyormuş gibi

10. Olay aklıma yalnızca bir durum, gözlem ya da sahne olarak değil sözcükler ya da resimlerden oluşan **bütün bir hikâye şeklinde** geliyor.

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Şu anda oluyormuş gibi

11. Bu olay bana bir mesaj verdiği için ya da yaşamımda kritik bir zamanı veya dönüm noktasını simgelediği için benim için **önemli** bir anıdır.

1 2 3 4 5 6 7

Hiç değil belli belirsiz net bir biçimde Son derece önemlidir

12. Bu olayın **gerçekten hatırladığım şekilde gerçekleştiğine** ve olmamış herhangi bir şeyi hayal etmediğime inanıyorum

1 2 3 4 5 6 7

%100 hayal ürünü %100 gerçek

13. Olduğundan beri, bu olay hakkında **düşündüm** ya da **konuştum.**

1 2 3 4 5 6 7

hiç bazen birçok hayatımda hakkında en sık düşünüp konuştuğum olaylardan biri

14. Bu olayı hatırlarken dışardan izleyen bir gözlemci, bir film izleyicisinden çok, kendimi olayın içinde yer alan bir aktör gibi görüyor, olayı içeriden yaşıyormuş gibi hissediyorum.

1 2 3 4 5 6 7

Hiç değil Belli belirsiz Net bir biçimde Şu anda oluyormuş gibi

15. Bu olay sizin için ne kadar **yoğun** duygular içeriyor?

1 2 3 4 5 6 7

Hiç Son derece

16. Bu olay sizin için ne ölçüde **olumlu** duygular içeriyor?

1 2 3 4 5 6 7

Hiç Son derece

17. Bu olay sizin için ne ölçüde **olumsuz** duygular içeriyor?

1 2 3 4 5 6 7

Hiç Son derece

18.Bu olay benim **kim olduğumu tanımlayan** bir olaydır.

1 2 3 4 5 6 7

Hiç değil Orta düzeyde Çok yüksek düzeyde

19.Lütfen olayın tarihini (gün / ay / yıl) olabildiğince doğru bir şekilde hatırlamaya çalışın. Tahmin etmeniz gerekse bile lütfen bir gün, ay ve yıl yazın. _____ / _____ / _____Eğer ayı biliyor ama günü bilmiyorsanız ayın başı ortası ve sonu için sırasıyla 1, 15, 30 yazın. Bazen olayın tarihini hatırlamak için tatiller doğum günleri ya da okulda olduğunuz yıllar gibi bilinen tarihler kullanmak yardımcı olabilir.

Appendix E: Thinking About Life Experinces Questionnaire (TALE-R)

Bu anıyı….

1.Geçmişte olduğum insanla aynı insan olduğumu hissetmek istediğimde anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

2.Başka bir kişinin söylemiş ya da yapmış olduğu ve bana şimdi yardımcı olabilecek bir şeyi hatırlamak istediğimde anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

3. Başka bir kişinin nasıl birisi olduğunu anlamak istediğim zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

4.Önceden olduğum insan olup olmadığımı düşündüğüm zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

5.Geçmişim hakkında düşünmenin geleceğime ışık tutmada yardımcı olacağına inandığım zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

6. Değer yargılarımın zamanla değişip değişmediğini düşündüğümde anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

7.Geçmişteki hatalarımdan ders çıkarmak istediğim zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

8.Bir ilişkimde yakınlığı arttırmak istediğim zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

9.Yaşamıma dair bir seçim yapmam gerektiği ve hangi alternatifi seçeceğim konusunda kararsız olduğum zaman anımsarım.

1	2	3	4	5

Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

10.Geçmişte çıkardığım bir dersi hatırlamak için anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

11.Birisiyle daha samimi bir ilişki geliştirmek istediğim zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

12.Bir arkadaşlığı arkadaşlığa dair anılar paylaşarak sürdürmek istediğim zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

13.Düşüncelerimin zaman içerisinde değişip değişmediği konusunda düşündüğüm zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

14.Başka birinin hayatı hakkında daha fazla şey bilmek istediğim zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

15.Geçmişten bugüne nasıl değiştiğimi anlamak istediğim zaman anımsarım.

1	2	3	4	5
Neredeyse hiç	Nadiren	Bazen	sık	Çok sık

Appendix F: Zimbardo Time Perspective Inventory (ZTPI)

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	2	3	4	5
1. Bir kutlama için arkadaşlarla bir araya gelmenin hayattaki en büyük zevklerden biri olduğuna inanırım.	○	○	○	○	○
2. Çocukluğumu hatırlatan manzaralar, sesler ve kokular sıklıkla harika anıları geri getirir.	○	○	○	○	○
3.Kader hayatımda birçok şeyi belirler.	○	○	○	○	○
4. Sık sık hayatımda neleri farklı yapmalıydım diye düşünürüm.	○	○	○	○	○
5. Kararlarım genellikle etrafımdaki şeylerin ve insanların etkisi altında kalır.	○	○	○	○	○
6. Bir kişinin günü sabahtan planlamış olmalı.	○	○	○	○	○
7. Geçmişim hakkında düşünmek bana keyif verir.	○	○	○	○	○
8. Düşünmeden hareket ederim.	○	○	○	○	○
9. İşlerin zamanında bitmemesi beni endişelendirmez.	○	○	○	○	○

10. Bir şeyi başarmak istediğimde kendime hedefler belirlerim ve bu hedeflere ulaşmak için belirli yöntemler düşünürüm.	○	○	○	○	○
11. Her şeyi göz önünde bulundurduğumda, geçmişimde hatırlanacak kötüden daha çok iyi şeyler bulunmaktadır.	○	○	○	○	○
12. En sevdiğim şarkıyı dinlerken, genellikle zamanın nasıl geçtiğini anlamam.	○	○	○	○	○
13. Yarının işlerini yetiştirmek ve diğer gerekli işleri yapmak, bu akşamın eğlencesinden önce gelir.	○	○	○	○	○
14. Her şey olacağına varır, bu nedenle ne yaptığımın bir önemi yoktur.	○	○	○	○	○
15. Geçmiş güzel günlerin nasıl olduğunu anlatan hikayeleri dinlemekten hoşlanırım.	○	○	○	○	○

16. Acı veren geçmiş deneyimlerim, zihnimde sürekli canlanır.	○	○	○	○	○
17. Hayatımı mümkün olduğunca dolu dolu yaşamaya çalışırım; anı yaşarım.	○	○	○	○	○
18.Randevulara geç kalmak keyfimi kaçırır.	○	○	○	○	○
19.Tercihen, her günümü son günümmüş gibi yaşamak isterim.	○	○	○	○	○
20.Güzel zamanlara ait mutlu anılar kolayca aklıma gelir.	○	○	○	○	○
21.Arkadaş ve yetkililere karşı olan yükümlülüklerimi zamanında yerine getiririm.	○	○	○	○	○
22.Geçmişten payıma düşen reddedilme ve kötü muameleden nasibimi aldım.	○	○	○	○	○
23.Fevri kararlar veririm.	○	○	○	○	○
24.Her günümü planlamaya çalışmak yerine, olduğu gibi yaşarım.	○	○	○	○	○

25.Geçmişimde, düşünmek istemediğim oldukça fazla tatsız anı var.	○	○	○	○	○
26.Hayatıma heyecan katmak benim için önemlidir.	○	○	○	○	○
27.Geçmişimde, geri alabilmeyi istediğim hatalar yaptım.	○	○	○	○	○
28.Yaptığım işten keyif almanın işi zamanında bitirmekten daha önemli olduğunu düşünürüm.	○	○	○	○	○
29.Çocukluğuma özlem duyarım.	○	○	○	○	○
30.Bir karar vermeden önce, yarar ve zararları tartarım.	○	○	○	○	○
31.Risk almak hayatımı sıkıcı olmaktan kurtarır.	○	○	○	○	○
32.Bana göre, hayat yolculuğunun tadını çıkarmak, sadece varış noktasına odaklanmaktan daha önemlidir.	○	○	○	○	○
33.Olaylar nadiren beklediğim gibi gelişir.	○	○	○	○	○

34.Eskiye ait tatsız görüntüleri unutmak benim için zordur.	○	○	○	○	○
35.Hedef, sonuç ve çıktıları düşünmem gerektiğinde, bu durum sürecin keyfini kaçırır ve faaliyetlerimin akışını bozar.	○	○	○	○	○
36.Anın tadının çıkarırken bile, kendimi geçmişte yaşadığım benzer deneyimlerle kıyaslama yaparken bulurum.	○	○	○	○	○
37.Her şey sürekli değiştiği için geleceğe dair plan yapamazsınız.	○	○	○	○	○
38.Hayatımın gidişatı benim etkiyemeyeceğim güçler tarafından kontrol edilir.	○	○	○	○	○
39.Yapabileceğim bir şey olmadığı için, gelecek hakkında kaygılanmanın bir anlamı yoktur.	○	○	○	○	○
40.İstikrarlı bir şekilde ilerleyerek, projeleri zamanında tamamlarım.	○	○	○	○	○

41.Ailem bir şeylerin eskiden nasıl olduğuyla ilgili konuşurken, kendimi bunları duymazdan gelirken bulurum.	○	○	○	○	○
42.Hayatıma heyecan katmak için riskler alırım.	○	○	○	○	○
43.Yapılacaklar listesi hazırlarım.	○	○	○	○	○
44.Genellikle, mantığımdan ziyade kalbimin sesini dinlerim.	○	○	○	○	○
45.Yapılması gereken bir iş olduğunu bildiğimde, cezbedici diğer şeylere karşı koyabilirim.	○	○	○	○	○
46.Kendimi anın heyecanına kapılırken bulurum.	○	○	○	○	○
47.Günümüz hayatı fazla karmaşık; geçmişin daha basit hayatını tercih ederdim.	○	○	○	○	○
48.Arkadaşlarımın öngörülebilir davranmalarındansa spontane davranmalarını tercih ederim.	○	○	○	○	○

49.Düzenli olarak tekrarlanan aile ritüelleri ve geleneklerini severim.	○	○	○	○	○
50.Geçmişte başıma gelen kötü şeyleri düşünürüm.	○	○	○	○	○
51.Eğer benim ilerlememi sağlayacaksa, zor ve ilginç olmayan görevlerde çalışmaya devam ederim.	○	○	○	○	○
52.Kazandıklarımı bugün keyif için harcamak, yarının güvencesi için biriktirmekten daha iyidir.	○	○	○	○	○
53.Genellikle şans, sıkı çalışmaktan daha iyi sonuç getirir.	○	○	○	○	○
54.Hayatta kaçırmış olduğum iyi şeyler hakkında düşünürüm.	○	○	○	○	○
55.Yakın ilişkilerimin tutkulu olmasını severim.	○	○	○	○	○
56.İşlerimi yetiştirmek için her zaman vakit olacaktır.	○	○	○	○	○

Appendix G: Basic Psychological Needs Scale (BPNS)

Aşağıda verilen ifadeleri dikkatlice okuyup size en uygun olan seçeneği işaretleyiniz.

	Hiç doğru değil (1)	Doğru değil (2)	Biraz doğru (3)	Doğru (4)	Çok doğru (5)
1.Hayatımı nasıl yaşayacağıma karar vermede kendimi özgür hissediyorum.	○	○			○
2.Etkileşim içinde olduğum insanları gerçekten seviyorum.	○	○			○
3.Çoğu zaman kendimi yetenekli hissetmiyorum.	○	○			○
4.Yaşamımda kendimi bastırılmış biri olarak görüyorum.	○	○			○

5.Tanıdığım insanlar yaptığım şeylerde başarılı olduğumu söylüyorlar. 6.İlişki kurduğum insanlarla anlaşabiliyorum.	○	○	○
7.İnsanlarla çok fazla sosyal sosyal etkileşimim ve sosyal ilişkim yok. 8.Fikirlerimi ve düşüncelerimi ifade etmede genellikle kendimi özgür hissediyorum. 9.Sürekli sosyal etkileşim içerisinde bulunduğum insanları dostlarım olarak görürüm.	○	○	○

10.Son zamanlarda yeni ve ilginç beceriler kazandım.	○	○	○
11.Günlük yaşamımda çoğu zaman bana söylenilen şeyleri yapmak zorunda kalıyorum.	○	○	○
12.Hayatımdaki insanlar bana önem verirler.	○	○	○
13.Çoğu zaman yaptığım şeyler bende bir başarı hissi uyandırır.	○	○	○
14.Günlük işlerde etkileşim içinde olduğum insanlar duygularımı dikkate alırlar.	○	○	○

15.Günlük yaşamda yeteneklerimi göstermek için fazla imkân bulamıyorum.	○	○	○
16.Yaşamımda kendime yakın hissettiğim çok fazla insan yok.	○	○	○
17.Günlük işlerde kendimi çok rahat hissediyorum.	○	○	○
18.Sürekli etkileşim içinde olduğum insanlar beni pek fazla seviyor gibi görünmüyorlar.	○	○	○
19.Genellikle kendimi çok kabiliyetli görmem.	○	○	○

20.Günlük işleri nasıl yapacağıma karar vermek için fazla fırsatım yok.	○	○	○
21.İnsanlar genellikle bana karşı gayet arkadaş canlısıdır.	○	○	○

Appendix H: Goal list sheet

Burada sizden şu anda ulaşmaya çalıştığınız hedeflerinizi yazmanızı istiyoruz. Lütfen hedeflerinizi aşağıdaki satırlara listeleyerek yazınız.

1._____

2._____

3._____

4._____

5._____

ETİK KURUL DEĞERLENDİRME SONUCU/RESULT OF EVALUATION BY THE ETHICS COMMITTEE

(Bu bölüm İstanbul Bilgi Üniversitesi İnsan Araştırmaları Etik Kurul tarafından doldurulacaktır /This section to be completed by the Committee on Ethics in research on Humans)

Başvuru Sahibi / Applicant: Arzu Göncü

Proje Başlığı / Project Title: Time Perspectives and Self-Defining Memories: Individual Differences in Time Perspective and Characteristics and Functions of Self-Defining Memories and Relationship with Goals and Needs

Proje No. / Project Number: 2020- 20024-38

1.	Herhangi bir değişikliğe gerek yoktur / There is no need for revision	XX
2.	Ret/ Application Rejected Reddin gerekçesi / Reason for Rejection	

Değerlendirme Tarihi / Date of Evaluation: 20 Şubat 2020

Kurul Başkanı / Committee Chair

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Üye / Committee Member

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