AGE DIFFERENCES IN REMEMBERING MIXED EMOTIONAL EXPERIENCES

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ABSTRACT

AGE DIFFERENCES IN REMEMBERING MIXED EMOTIONAL EXPERIENCES

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In many cases, we experience different kinds of mixed emotions, but the concepts related to those experiences are still being studied. The present study examined the phenomenological differences between discrete emotional and mixed emotional experiences among different age groups. Fortyone adolescents between ages 18 and 22, thirty-seven adults in midlife between ages 40 and 44, and thirty-one people older than age 65 were participated in the study. Participants were briefly explained their mixed emotional (e.g. happiness& sadness, anger&compassion) and discrete emotional (e.g. happiness, anger, compassion and sadness) experiences and responded to Autobiographical Memory Characteristics Questionnaire for each. Results suggest that discrete emotional experiences are remembered better than mixed emotional experiences. Relatedly, inhibiting mixed emotion is easier than inhibiting single emotion. According to age, older adults inhibit their emotions easier than younger age groups. Middle adults inhibit bittersweat emotions better than adolescents and older people. The findings were discussed in relation to emotion and aging literature.

Keywords: Mixed Emotion, Discrete Emotion, Age, Phenomenology, Autobiographical Memory

ÖZ

KARIŞIK DUYGU DENEYİMLERİNİN HATIRLANMASINDA YAŞ FARKLILIKLARI

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Pek çok durumda, farklı türlerde karışık duygular yaşıyoruz, ancak bu deneyimlere ilişkin konular hala araştırılmaktadır. Bu çalışma, farklı yaş grupları arasındaki ayrık duygusal ve karışık duygusal deneyimler arasındaki fenomenolojik farklılıkları incelemiştir. Çalışmaya yaşları 18-22 arasında değişen 40 kişi, 40-44 yaş arasındaki otuz beş yetişkin ve 65 yaşından büyük otuz bir yaşlı katılmıştır. Katılımcılar karışık duygusal deneyimlerini (örneğin, mutluluk ve hüzün, öfke ve şefkat) ve ayrık duygusal (örn. Mutluluk, öfke, merhamet ve üzüntü) deneyimlerini kısaca anlatmış ve her biri için Otobiyografik Bellek Özellikleri Anketinden sorulara cevap vermişlerdir. Sonuçlar, ayrık duygusal deneyimlerin karısık duygusal deneyimlere göre daha iyi hatırlandığını göstermektedir. İlgili olarak, karışık duygusal deneyimleri bastırmanın, ayrık bir duygusal deneyimleri bastırmaktan daha kolay bulunmuştur. Yaş farklılıklarına bakıldığında, yaşlı yetişkinler duygularını genç ve orta yaş grubuna göre daha kolay bastırmaktadır. Orta yetişkinler ise, acı-tatlı duygulara dair anılarını ergenlerden ve yaşlı insanlardan daha iyi bastırmaktadır. Bu

Anahtar Kelimeler: Karmaşık Duygular, Ayrık Duygular, Yaş, Fenomenoloji, Otobiyografik Bellek

çalışmanın bulguları duygu ve yaşlanma literatürü bağlamında tartışılmıştır.

DEDICATION

To my dear family and to my academic journey

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CHAPTER 1

INTRODUCTION

Try to imagine an emotional and important personal event. May be the university graduation day or imagine a move-out day from your home, dormitory. Which emotions were you experiencing at that moment? Let's think about your graduation day, may be "you feel the joy of experiencing something new from one side and you feel sadness of saying goodbye to those years on the other side". But how can these two opposite emotions become blended and be experienced at the same time?

"The fluctuations in our emotions are actually things we are accustomed to.

Sometimes we feel"well, sometimes we feel bad, and sometimes we feel a mixture of positive and"negative emotions (bittersweet, ambivalent). This is a co-occurance of two opposite emotions (e.g., positive and negative affect) which is defined as experiencing mixed emotions (Larsen et al., 2001). Not only happiness and sadness but any other two opposite emotions can be experienced at the same time. Mixed emotional experiences are called covariation (Ready, Carvalho, & Weinberger, 2008), co-activation (Larsen, McGraw, & Cacioppo, 2001), "poignancy (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000; Carstensen et al., 2011), "or co-occurrence (Hay & Diehl, 2011; Ong & Bergeman, 2004).

Note, mixed emotions and emotional blends are different concepts. The emotional blends refer to experiencing any two emotions together (Scherer, 1998). Emotion blends have been widely studied (e.g., "Izard, 1972;"Folkman and Lazarus, 1985;"Diener and Iran-Nejad, 1986; Smith and Ellsworth, 1988;"Oatley and Johnson-Laird, 1996;"Scherer, 1998). For instance, being happy and excited at the same time or getting anxious and scared are examples of emotion blends (Zelenski and Larsen, 2000; Vansteelandt et al., 2005).

In contrast, mixed emotions refer to feeling two opposite emotions simultaneously. There is a growing interest in mixed emotions with bittersweat experiences being the most frequently studied among them (e.g., Larsen et al., 2001; Williams and Aaker, 2002; Fong, 2006; Larsen and Green, 2013). Henderson and Norris (2013) investigated the co-occurance of negative-positive affect; Schimmack and Colcombe (2007) investigated the mixed emotions related to pleasure and displeasure; Andrade and Cohen (2007) conducted a research on fear and happiness; also amusement and disgust is studied by Hemenover and Schimmack (2007) and lastly hope and fear is studied (Bee and Madrigal, 2013). All these studies demonstrated that mixed emotions can be experienced jointly (e.g., Thompson, Zanna, and Griffin 1995; Andrade and Cohen 2007; Larsen., McGraw 2011; Priester and Petty 1996; Madrigal & Bee, 2005) "especially during transition periods (moving out of a college dormitory, in a university graduation day Larsen et al., 2001); "while listening certain types of musics (Hunter et al., 2008) and when people are exposed to specific stimuli" (e.g., such as an emotional movie; Larsen, McGraw, and Cacioppo 2001, Carrera & Oceja, 2007).

One issue related to mixed emotional experiences is that how they differ from emotional experiences associated with discrete emotions. For example, do people remember their bittersweat experiences better than their happy or sad experiences? When two opposite emotions come together do they facilitate remembering or make it difficult? Furthermore, whether the relationship between remembering mixed emotional experiences and discrete emotional experiences change depending on which opposite emotions come together remains an amprical question.

Another question is that how aging influences remembering mixed emotional experiences. There are some studies indicating that the experience of mixed emotions increase with perceived constraints on time (Ersner-Hershfield, Mikels, Sullivan, and Carstensen, 2008) but we still don't know this stands for other mixed emotional experiences as well.

The present study focused on a-) how remembering mixed emotional experiences differ from remembering experiences with discrete emotions by considering different opposite emotion combinations (i.e.,bittersweat and anger/compassion), and b-) how aging is related to remembering these mixed emotional experiences.

The next two sections discuss the relationship between mixed emotions, discrete emotions and aging in more detailed. Finally, overview of the study is summarized by introducing the general procedure, research questions and their rationales.

1.1. Remembering Discrete Emotional Experiences and Mixed Emotional Experiences

Appraisal theories of emotion suggest that emotions are associated with different goals, beliefs, motivations, appraisals and information processing strategies (Ellsworth & Scherer, 2003;Levine & Pizarro, 2006). These differences are also reflected in what people remember about different emotional experiences (Levine & Pizarro, 2004; Breckler, 1994; Levine, 1997; Talarico & Rubin, 2003; Levine & Drapalski, 2002; Robinson & Clore 2002). For example, when recalling happy memories, people usually use their general knowledge to remember what has happened (Levine & Bluck, 2004). Due to this tendency, people reported high vividness ratings for happy memories but they also produced more errors than sad memories.

In contrast, when recalling and describing sad experiences people usually deal with negative consequences that can not be altered (Levine, 1996; Smith & Lazarus, 1993). It may be because of having negative antecedents that in turn affect the self by its unexpected (Ortony et al., 1988) and negative personal consequences. In addition, they tend to use less heuristics and apply more analytic and effortful information processing strategies. The feeling of sadness increases one's tendency to revise beliefs and expectations that are inconsistent with the outcomes (Levine, 1996; Stein & Levine, 1990). So, sad memories are reported as

vivid as happy memories but they are less prone to error than happy memories (Levine & Pizarro, 2006).

Another discrete emotion, anger, emerges when a person perceives an obstacle. Anger usually includes high arousal in blaming others for their goal barrier and/or negative outcomes. Therefore, contents related to goals and obstacles are better encoded and remembered in an angry memory (Levine, 1996). There is a finding that anger is correlated with vividness in recall (Bluck & Li, 2001). But there are no studies that investigated the effects of discrete emotion of anger on memory separately yet. In a study by Uzer & Gulgoz (2014); anger memories are founded as vivid as other types of discrete memories such as happiness, sadness and proud. Also, anger memories are remembered in more contextual detail (e.g. location) than other discrete emotions.

Compassion is one of the controversial issues in the literature. It is evaulated as an other-related emotion that includes the emergence of feeling in witnesssing someone's suffering that urge people to help those others in need (see Goetz, Keltner, & Simon-Thomas, 2010; Nussbaum,1996, 2001; Lazarus, 1991). The experience of compassion urges people to care for others and a motives them to reduce other people's suffering (Batson et al., 1987). This other-oriented suffering can be correspond to people's values or goals that may include the idea that equal opportunities and/or rights should belong to all people (Lazarus, 1991). Compassion is experienced in the face of another individual's losses and viewed as a reaction to suffer and negative events that create empathic distress (e.g. Hoffman, 1981, 1984) or a blend of love and sadness (see Sprecher & Fehr, 2005; Underwood, 2002).

The intensity of the exprience of compassion can be high when other's suffering is concurred with the individual's self goals or when the dicrepancy is high between the self and other (Goetz, Keltner, & Simon-Thomas, 2010). Because it is stated that the feeling of compassion is experienced more against people who are genetically self-related and

emotionally close (Korchmaros & Kenny, 2001) and similar to them by values, behaviors. Also, compassion is shaped by the appraisals people's deservingness of suffer, characteristics of the suffering person and the evaluation of cost and benefit in helping to them (Schroeder, Penner, Dovidio & Piliavin, 1995). Compassion-related appraisals and coping ability of the self which includes the assessment of the cost-benefit of helping behavior are related issues in the experience of compassion. The emotional magnitude of compassion is determined by the individual's appraisals that whether or not they have a ability of coping against suffering person. If the coping ability is perceived as high, then the intensity of compassion experience will be high. But, if it is perceived as low it gives rise to distress and in turn tendencies related to compassion (Hoffman, 1981).

Goetz, Keltner, and Simon-Thomas (2010) suggest that there is a close relationship between anger and compassion. People feel compassion for someone in need of help but if people think that the person does not deserve the help or that the person did not appreciate the help then the feeling of anger comes along with compassion. So, the appraisal of compassion involves attitudes about fairness. Although there are many studies investigating compassion and its underlying mechanisms, there is not much research on investigating how people remember their memories associated with compassion.

In sum, the underlying mechanism, motivational differences and different problem solving strategies about different types of discrete emotions may have an affect on encoding and remembering different aspects of the event. As a result, in the recall process of different types of emotional memories, each emotion may be associated with different phenomenological properties of autobiographical memory.

The information processing approach that sheds light on many psychopathologies has provided information on disorders basically in depression, anxiety, panic disorder, post-traumatic stress disorder, dissociative disorder and obsessive-compulsive disorder.

Cognitive biases in information processing biases are defined as selective processing of emotional content. Cognitive functioning is more about emotions or content. These biases are basically categorized into four groups: 1) attention bias towards threat-related information, 2) selective memory processes, 3) distorted judgements for risk, and 4) bias in interpretations of threats (Craske., Pontillo, 2001). Panic patients have vivid memories for past experiences that involves threats. This is an example of direct memory bias in these patients. In addition, there are research findings that individuals with panic disorder have threat-related autobiographical memory biases (Wenzel., Cochran, 2006).

In depression, in a study Williams and Broadbent (1986b) showed that depressed participants were more easily accessed their negative emotional memories (eg angry, sad, clumsy, hurt, lonely). These results were repeated in studies conducted with the groups of adolescents (Knight, Maines & Robinson, 2002; Lyubomirsky, Caldwell & Nolen-Hoeksema, 1998). According to another clinically more important finding, the person remembers moodcongruent self-related memories more easily than other memories which are found to be difficult to remember. In other words, some researchers (e.g., Teasdale & Fogarty, 1979; Teasdale & Taylor, 1981; Teasdale, Taylor & Fogarty, 1980) observed that depressed participants were more easly recall their negative memories. In another study, positive and negative words were given to participants and they were asked to remember specific personal memories related to each emotional word. The results show that in recall process, those who have been diagnosed with depression accessed their positive memories more difficult than negative ones. There are two possible explanations about this situation. First, it is thought that it is difficult for people to access happy memories in a depressed mood. This is because when the changes in the mood of depressed people are followed up and these studies are repeated, different results are obtained in periods when they feel less depressed. So, the emotional state affects the reachability of memories. This effect is called "moodcongruent memory bias". This is thought to be an important factor in maintaining depression in those studies that show that depressed people tend to remember more negative memories. Secondly, the mood which people are in is said to be the cause of the negative evaluations about the recalled memory. In some other studies, when the emotional intensity of negative emotional experiences remembered in depression is examined, the emotional intensity of negative emotional memories found to be low. According to research results of Rottenberg, Joormann, Brozovich & Gotlip (2004), it was seen that the decrease in emotional intensity in negative emotional experiences predicted high depression symptoms that appeared after one year. Researchers have considered this as an escape related to emotions in autobiographical memory, and stated that this is an adjustment mechanism related to depression in emotion regulation. Also, people in depression remember their memories less detailed and in a general content. Researches on biases in encoding and storage of memory in depression have shown that depressive patients remember negative information better and remember the positive information more difficult. This bias, which depressive people make during the recall process, is thought to be an important source of information processing.

In post-traumatic stress disorder, when people diagnosed with PTSD recall their memories, they recall them with "as experiencing again" and experiencing "flashback" (Brewin, 2001, Brewin & Holmes, 2003). It has been seen that in flashbacks, people remember the details of the event (eg sound, image) better. During the sign of "As living again", the individual's sense of perception is deteriorates and it seems as if the event is happening now in recall, not in the past. This problem of detoriated time perception causes the desperation and fear related to the moment of the event, so that avoidance behaviors occur in recall. The most discussed concept of the mechanism of traumatic memory is the repression mechanism (Schooler & Eich, 2000; Brewin & Andrews, 1998). Another specific mechanism is the dissociation experience that occurs when an individual distances himself / herself during

recall of traumatic experience (Brewin & Andrews, 1998; Van der Kolk, Van der Hart & Marmar, 1996). These mechanisms have proven that the encoding process of experiences can completely change the recall process of the emotional event. Therefore, when working with these patients to avoid their avoidance behavior, in addition to the primary emotion of fear, other secondary emotions accompanied by fear, should be elicited during therapies.

In Obssessive compulsive disorder (OCD), there are some studies investigated the phenomenological properties of participant memories. In a study conducted by Zermatten et al. (2007), participants who did not diagnosed as OCD rather showed control behaviors were asked to recall some negative, positive, and neutral memories and evaluate them in terms of vividness and event detail in recall process. Participants with control behaviors recalled all the events as vivid than participant without control behaviors. In other words, people who have control behaviors remember their past experiences having the feeling that they did not experienced the event in detail and vivid. In patients with OCD, their repetitive behavior leads to insecurity and phenomenologically weak experiences. On perception, repeated behaviors are difficult to distinguish from each other. They are encoded in memory not as an experience rather as a general picture. So, in the recall process of past experiences, their phenomenological characteristics in memory will also be weak. This situation strengthen the sense of insecurity and increases the likelihood of doing those repetitive behaviors. In short, continuous repetitive behavior is a result of the fact that the phenomenological memory experience in OCD patients is not strong enough

. In emotion and autobiographical memory related literature, we know that some discrete emotional memory evoke different information processing strategies. But the pattern about recalling mixed emotions is quite different than these unipolar emotions.

As in discrete emotional experiences, different motivations and information processing strategies also emerges in mixed emotional experiences. In the experience of mixed emotions,

people experience felt conflict which do not occur in unipolar emotions (Williams and Aaker 2002). In this mixed emotional experiences, individuals found to have more motivation to hold unipolar happy or sad memories. The felt conflict also do not arise in every person (Williams and Aaker 2002). Some individuals may have difficulty to keep and recall events that create mixed emotions in them and may feel conflict or discomfort as a result of this mixed feeling (Cacioppo et al., 1997; Priester and Petty 1996). The feeling of discomfort in mixed emotional experiences is associated with individual and cultural differences (e.g., impulsivity [Ramanathan and Williams 2007]; social desirability, Festinger 1962]; having tendency in abstract thinking [Hong and Lee 2007], cultural variations [Williams and Aaker 2002]). Thus, if people may felt comfortable with the conflict they can easily and accurately recall mixed emotions and begin not to be disturbed by the ambiguity about mixed emotions (Hong and Lee 2007). But if the felt conflict arises disturbance in individual, people begin to get over from this emotional conflict. Different problem solving strategies and coping strategies foster dealing and solving the discomfort about felt conflict (Folkman et al. 1986).

While recalling these mixed emotional experiences, time becomes an important factor. Over time, changes occur in the valance and the evaluation of the mixed emotional events. For example, as time passes memory fades and recalling mixed emotions becomes more difficult and less accurate as compared to recalling unipolar emotional experiences (Aaker, Drolet, Griffin., 2008).

1.2. Age Differences in Remembering Discrete and Mixed Emotional Experiences

There are some theories becomes prominent regarding the age-related changes in emotional experiences. The first approach is the basic Discrete Emotions Approach to affective aging (DEA; Kunzmann, Kappes, & Wrosch, 2014). The theory focused on two stages in the adult life; young adulthood and old age that each stage of life contains different age-spesific configuration of opportunities and limitations. DEA identifies the young

adulthood as having opportunities to improve the potential of the person that starts the growing phase. So, in this phase, the processes of optimization becomes significant rather than the process of compensation or maintanence (Baltes & Baltes, 1990; Ebner, Freund, & Baltes, 2006). As a result of these configurations in this two stages, the salience and the adaptive value of particular positive and negative emotions changes (e.g., sadness and anger).

Other studies investigate the improvement in importance of emotional goals and emotion regulation strategies with age that arises differences in memory for emotional information (Blanchard-Fields,ScHeibe 2005; Charles, Fung, Carstensen.,2003; Mather, Carstensen, Kennedy., 2004; Schieman, 1999). For example, in a study by Gross et al. (1997) findings reveal that as people aged the intensity of anger decreases but the same mechanism is not found for other emotions. On the other hand, conflicting results claim that older people report the experience anger and sadness as intensely as younger adults when recall. (Bluck & Li, 2001). More specifically, the intensity of sadness either remained stable or increased with aging. (Charles & Carstensen, 2008; McConatha et al., 1997).

Other two approaches are Dynamic Integration Theory (DIT), proposed by Labouvie-Vief., 2003) and Socio-Emotional Selectivity Theory (SST) developed by Carstensen, et al., 1999). Both theories claim that experiences and aging go together. Over time, the experience and the gained knowledge from this emotional experiences become important and foster emotion regulation. As a result, as people aged, emotional maturation becomes prominent (Carstensen, et al., 2000). More specifically, according to the Dynamic Integration Theory, the emotional complexities are found to be high in middle-aged (Labouvie-Vief et al., 2007). So, the skill to tolerate conflicting information or ambiguity in emotional complexities is the main factor of the maturity in cognition. The improved complexity in cognitive processes is related with more complex and adaptive emotional responses.

Researches claim that older people have same or sometimes even higher levels of life satisfaction when compared with young people (Diener, Suh and Oishi., 1997). Accordingly, Socio-emotional selectivity theory (SST; Carstensen, et al. 1999) puts importance on the emotional functioning in adulthood. The theory claims that as people get old, improvement in emotion regulation strategies increases the distinctiveness and attention to emotional goals by the perceived limitations of time (Carstensen, et al., 1999). When people perceive time as endless, gathering information and increasing knowledge, experiencing novelty becomes as a future-oriented goals. But, when time is percieved as finite, regulating emotions to enhance well-being becomes as a goal (Carstensen, et al., 1999). It is also mentioned that not the chronological age but the perceived time perspective reflects these changes into adulthood. So, with aging people get closer to the end of life and face with death; emotional goals gain importance that in turn have a more influence on behavior (Mather, 2004). With this confrontation, improved motivation fosters older people to get immediate gratification and to develop different strategies related with more effective use of emotion regulation. These strategies can be increasing the effect of positive emotion to keep positive sides of the negative situation (Gross et al, 1997); decreasing the intensity in negative emotions (e.g., anger) (Charles et al., 2001); use of more positive appraisal. They become focusing and favoring positive aspects of experiences (Phillips, Henry, Hosie, & Milne, 2006), report less rumination on negative emotional events (McConatha et al., 1997) and avoiding the experience of negative emotion in order to keep their emotional well-being to foster social adjustment with their environment (Löckenhoff & Carstensen, 2007; Mather & Carstensen, 2005; Carstensen et al., 2000; Carstensen et al., 2003).

By avoiding negative informations, older people may have a bias against negative information in their memories. Also, they may remember negative events more positively with a use of more cognitive reappraisal strategies (e.g, Mather., 2004; Carstensen & Mikels,

2005; Labouvie-Vief, DeVoe, & Bulka, 1989). As a result, older poeple may have more positive emotional profile than younger people (Carstensen, et al, 1997; 2000; Mroczek, & Kolarz, 1998). This will put significance on the study of Carstensen et al. (2000) that, among older adults the positive emotional experiences is more durable than the highly negative emotional experiences. Also, positive affect was found to be higher in older people (Mroczek & Kolarz, 1998). More specifically, old people reported less anger, sadness, fear and reported more happiness when compared with young people (Gross et al, 1997).

With a help of emotion regulation strategies, old people become skillful at controlling their emotions more effectively (Gross, 2001). This emotional control creates high frequencies of happiness and lower frequencies of sadness. For instance, older people reported that they use more distancing, hiding feelings from others (Gross et al, 1997; Lawton et al., 1992) and more positive appraisal in experiences compared with younger adults (Pimley, Folkman & Novacek Lazarus, 1987).

Besides discrete or dimensional emotional experience, reports from the study shows that understanding of mixed emotions and its experience improves with development (Larsen et al., 2007). As the term mentioned in the introduction part, poignancy is defined as a mixed emotional experience that occurs when the individual confronted with meaningful endings. Of course, not every older person experiences poignancy in the face of endings. Generally, this experience occur among older adults who use less cognittive re-appraisal by emotion regulation strategy to re-interpret the ending.

Ersner-Hershfield et al. (2008) conducted the first study to examine the relationship between poignant emotions and endings. They found that, when people experienced a limited future time perspective, the higher levels of poignancy occur. The results from this study clarify that the results were not an affect of age, rather it was a future time perspective about felt poignancy. In addition, the study results showed that from the scale that measured

happiness, there was a decline in happiness and increase in sadness but people were still feeling happy because people rated at or above the midpoint of the scale. So, the experience of poignancy entails a mixture of happiness and sadness that people experience both valences in a strong way.

The poignancy was also examined in studies about SST and made predictions for increased emotional complexity through aging (Carstensen, 1995, 2006; Carstensen, Isaacowitz, & Charles, 1999). As it was mentioned before, SST is a life span theory of motivation. According to SST, the importance of goals changes as a function of perceived time limit. When the individual is aware of the limited time remaining, they tend to experience mixture of happiness and sadness. Change in their emotional climate results in more complex emotional experiences than young people. Also older adults become more skillful at regulating their negative emotions in order to sustain emotional well-being (Carstensen et al, 2000; Carstensen et al, 2011). Regulation of negative emotions do not mean that they do not occur or their intensity are low. Rather, as people aged, negative emotions started to be better regulated. For example, if older people are aware of the limited future time combined feelings of sadness and joy may occur. Spending time with a close friend may reflect the sadness that this moment will be the last time. In contrast, having a chance to still spending that time would bring joy.

There are not many studies which compared the phenomenological characteristics of emotional memories in younger and older adults. Researches related to retrieval of autobiographical memories claim that positive emotion gives memories in a more detail way than negative emotion phenomenologically both in younger and older adults (e.g, Petrican, Moscovitch, & Schimmack, 2008; Schaefer & Phillipot, 2005; Bluck & Li, 2001; Rubin & Berntsen, 2003). For example, negative memories were found to be more accurate and included more central information. But, positive memories contained wider range of

information, and were rated as more vivid (Berntsen, Rubin 2002). According to "positivity effect" older adults remember their emotional memories more positively than younger adults also they have tendency to rate their positive autobiographical emotional memories more vivid and detailed (Gross et al.,1997; Carstensen, Mather, Charles, 2003; Carstensen, Mather, 2005).

In a study by (Uzer, Gülgöz, 2001) the researchers investigated how participant age has an effect on subjective experience of remembering emotional events. Results showed that older people's anger memories received lower ratings on most of the phenomenological characteristics compared to other memories (e.g.happy, sad, proud). More specifically, older adults recalled their angry memories less vividly but less importantly than happy, sad and proud memories. But, younger adults' angry memories did not differ in terms of vividness ratings from other memories. The important finding that, may be because of becoming a master of emotion regulation, with an increased motivation to enhance emotional well-being, and maintain harmonious social relationships, angry experiences were rehearsed less than other memories in older people.

To sum up, few researchers have compared the phenomenological characteristics about emotional memories by age (D'Argembeau et al., 2003; Schaefer & Philippot, 2005; Uzer, Gulgoz, 2001). Also, the emotion and aging literature reveals that emotional processes reflect changes across lifespan. As people get older, the experiences also change through different types of emotions Therefore, phenomenology of different emotional memories may differ for different age groups.

When we look for the affects of mixed emotional experience on memory related with age provided limited information. As future time is perceived as limited, the possibility of considering both positive (e.g., happy) and negative (e.g., sad) aspects of an experience become higher. Therefore, it is more likely that older people would remember mixed

emotional experiences better than younger people (Ersner-Hershfield et al, 2008). But, less is known about first, how different mixed emotional experiences are recalled; second, how age influences the retrieval properties of the memories.

1.3. The Present Study

Based on previous literature, we can argue that age is associated with change in recalling different types of emotional experiences. Yet, there is not much research for mixed emotions.

In the present study, we were interested in how people from different age groups recalled different discrete and mixed emotional experiences. Understanding the influence of different emotions on memory properties is crucial because subjective quality is important in emotional memory (e.g., vividness, event details, belief in accuracy, accesibility etc.) (Dougal & Rotello, 2007; Mickley & Kensinger, 2009; Rubin & Kozin, 1984, Schmolck, Buffalo, & Squire, 2000; Talarico & Rubin, 2003). Considering different emotions and their pairings is also important for understanding how aging affects remembering emotional experiences.

Investigating the difference in phenomenological properties of autobiographical memories in relation to mixed emotions with participant age is the main purpose of the study. To examine age differences according to phenomenological properties (i.e, vividness, event detail, belief in the accuracy, accessibility, emotional distancing, and pre-occupation with emotions) emotions of happiness, sadness, compassion, and anger were included as discrete emotions. Bittersweet and anger/compassion were mixed emotions used to elicit autobiographical memories.

Due to limited research on the area, the present study is more of an exploratory research. The following research questions were asked:

- 1-) Are there any differences between the phenomenological properties of memories associated with discrete emotions?
- 2-) Are there any differences between the phenomenological properties of memories associated with discrete emotions and mixed emotions?
- 3-) Are there any differences between the phenomenological properties of memories associated with discrete emotions across age groups?
- 4-) Are there any differences between the phenomenological properties of memories associated with discrete emotions and mixed emotions across age groups?

CHAPTER 2

METHOD

2.1 Participants

The sample included 109 participants (Male = 50, Female =59), comprised of 41 adolescents (M = 20.95, SD = 1.44), 37 middle adulthood (M = 42.03, SD = 1.12) and 31 elder people (M = 73.94, SD = 5.31). A convenience sampling method was used. Participants were voluntarily participated to the study. Reasons for the formation of two different emotion sets and comparing them with each other according to their properties is to gain more meaningful results and it was also an effective way to gain power.

2.2 Materials

The main measurement tool used to assess memory properties is Autobiographical Memory Characteristics Questionnaire. In addition, participants mental functioning was assessed by using Mini-Mental State Examination and participants' whose scores were above the cut-off point were excluded from the study process. Apart from this, according to participant age Beck Depression Inventory and Geriatric Depression Inventory was used in order to assess each participants' depression level. Participants' whose depression scores were above the moderate depression level for each inventory were excluded from the measurement of memory properties.

2.2.1 The Autobiographical Memory Characteristics Questionnaire (AMCQ)

Recall properties of autobiographical memories were examined using a modified version of the autobiographical memories questionnaire (Boyacıoglu & Akfırat, 2014). The

subscales assessed following memory characteristics: vividness, belief in accuracy, event details, accessibility, emotional distancing, and preoccupation with emotions (see Appendix B for the AMCQ questions). Participants were asked to rate how true a statement relating to each characteristic was on a 7 point scale ranging from 1 ("Strongly disagree") to 7 ("Strongly agree"). For example, belief in accuracy was assessed by rating the statement "The event occurred exactly the way I remember it" or for sharing asking participants to rate the extent to which they agreed with the following statement on a 7-point scale was assessed by rating the statement "I often talk about this event with my friends (Boyacioglu & Akfirat, 2014).

In addition, the questionnaire was also include questions about the age of the memories of participants', the importance of the emotional memories they have recalled, demographic information such as their age, SES and education level.

2.2.2 Mini Mental State Examination (MMSE)

"Mini Mental State Assessment" (MMSE) test was originally developed by Folstein (1975). Many studies have been confirmed the reliability and the validity of the test (e.g. Tombaugh, 2005; Koch, Gürtler and Szecsey, 2005). In Turkey, the validity and reliability studies of this test were carried out by Güngen et al. and the inter-rater reliability of the turkish form is 0.99 (Güngen et al., 2002). According to the norm study (Güngen et al., 2002), for people aged between 18 and 24, the median score of MMSE is 29; and 25 is for individuals aged 80 and older. It has been determined that the Turkish version of MMSE is a valid and reliable assesment for diagnosis of mild dementia in Turkish population and the cut-off score was determined as 23/24 (Güngen et al., 2002).

In the current study, The Turkish version of Mini Mental State Examination test was used to test whether there is a problem in mental functioning of the participants which would make them difficult to retrieve their memories. All participants scored above the cut-off point

of 24 on the MMSE (Folstein, Folstein, & McHugh, 1975). Scores indicated that adolescents (M = 28.71, SD = 1.952), middle adults (M = 28.00, SD = 2.261) and older adults (M = 25.74, SD = 2.804) did not have any cognitive difficulties that would impair their performance on the study. As expected, the mean MMSE score of elder people (M = 25.74, SE = .504) was significantly lower than the mean scores of adolescents (M = 28.71, SE = .305; F = .305; F = .305; F = .305; F = .305.

2.2.3 Beck Depression Inventory (BDI)

Previous research indicated that depressed participants have difficulty access in retrieving specific autobiographical memories (Köhler et al., 2015). Therefore, we assessed participants' depression level by using The Beck Depression Inventory (BDI). BDI has 21-items on a 4-point scale from 0 (absent symptom) to 3 (symptom severity). Scores above 20 points indicate depression in non-clinical populations (Kendall, P. C., Hollon, S. D., Beck, A. T., Hammen, C. L., & Ingram, R. E.,1987). In people diagnosed in depression, those scores range between 0–13 refer to minimal depression, 14–19 mild depression, 20–28 moderate depression and 29–63 severe depression (Beck, A.T., Steer, R.A, & Brown, G.K., 1996)

Correlation coefficients between clinical ratings of depression and BDI for clinical and non-clinical populations were 0.72 and 0.60, respectively (Beck, A.T., Steer, R.A, & Carbin, M.G., 1998)

All participants scored below the cut-off point of 20 on the Beck Depression Inventory (BDI; Beck, A.T., Steer, R.A, & Brown, G.K., 1996), indicating that they did not meet the criteria for depression that would impair their performance on the task. The mean BDI score of adolescents (M = 13.34, SE = 1.56) was not significantly different from middle-adults (M = 12.18, SE = 1.90; F(1, 76) = .221, p > .05).

2.2.4 Geriatric Depression Scale (GDS)

To measure depression levels of elderly group, short form of Geriatric Depression Scale was used (GDS; Yesavage et al.,1983). In the study, the turkish version and the short form of the scale developed by Ertan et al. (1997) was used. Short Form GDS has 15 Yes/No questions measuring participants' mood in the past week. Scores between 0-4 are considered normal due to age and education; 5-8 represent mild depression; 9-11 indicate moderate depression; and 12-15 indicate severe depression.

All participants scored below the diagnostic criteria of 0-4 on Geriatric Depression Scale (GDS; Yesavage et al., 1983), indicating that they did not meet the criteria for depression that would impair their performance on the task. The mean GDS score of elder group was (M = 3.41, SD = 3.07).

2.2.5 Procedure

After completing informed consent and a brief demographics questionnaire, participants completed MMSE. Next, each participant was asked to recall their autobiographical memories associated with 4 discrete (i.e., happy, sad, anger, compassion) and 2 mixed emotions (happy and sad, anger and compassion). Each participant was instructed that the memories should meet certain criteria. First, each memory should refer to a specific event that was personally experienced or was directly seen by the participant. The event should not last more than a day. Finally, each event should be at least two weeks old.

While asking for each emotional memory, the order of emotions were randomized across participants. In addition, while asking for mixed emotional experiences, the wording 'happy and sad' and 'sad and happy' was randomized across participants. The same rule applied to mixed emotion of 'anger and compassion'. For example, some participants were

asked to retrieve their experiences that they felt "both anger and compassion", and otherswere asked to retrieve their experiences that they felt "both compassion and anger".

After recalling each memory, participants responded to AMCQ. The ratings used in this study covered phenomenological properties (vividness and event details), metacognitive properties (beliefs in memory accuracy), preoccupation with emotions, and emotional distancing. Participants also dated each event.

After responding to AMCQ, participants completed BDI and/or GDI depending on their age.

CHAPTER 3

RESULTS

3.1 Data Analysis

First, we tested whether there are age differences in phenomenological properties of happy, sad and bittersweat memories. To test this question, we applied 3 (age) x 3 (emotion type) mixed ANOVA as age between-subjects variable and emotion type within-subjects variable for each phenomenological property (i.e., vividness, event detail, accessibility, emotional distancing, preoccupation with emotions and belief in the accuracy). Next, we tested whether there are age differences in phenomenological properties of memories associated with anger, sadness and anger/sadness together. Emotions were analysed by making two sets. The first set include happy, sad and bittersweet emotions and analyised for each dependent variable. This process also applied for the second emotion set which includes anger, compassion and mixed experience of anger & compassion emotions.

In order to test the assumptions of ANOVA the Mauchly's test of sphericity was conducted and in the case of violation of the sphericity, the Green-house Geiser *F* value was reported. Table 1 demonstrates the mean values for the ratings of memory properties by discrete emotions, mixed emotions and participant age. To control for event importance and previous rehearsal ratings, One-way ANOVA was conducted.

In discrete emotions, there was a significant main effect of event importance in happy memories (F(2,108)=3.697, p<.05). Post-hoc tests demonstrated that there was a significant difference between adolescents (M=5.95, SE=.223) and old-age participants (M=6.74, SE=.122; MD=-.791, SE=.295, p<.05). Also, the main effect of event importance in discrete compassion memories were also significant (F(2,107)=4.695, p<.05). Post-hoc tests

demonstrated that there was a significant difference between adolescents (M = 5.29, SE = .255) and old-age participants (M = 6.33, SE = .260; MD = -1.041, SE = .345, p < .05). In contrast to the significant main effect results in dicrete happy and compassion memories; the main effect of event importance ratings were insignificant in sad memories (F(2,108) = 2.577, p > .05) and also in anger memories (F(2,107) = 2.926, p > .05).

In mixed emotional experiences; there is a significant main effect of event importance in bitter-sweat memories (F(2,106)=5.485, p<.05). Post-hoc tests demonstrated that there was a significant difference between adolescents (M=5.15, SE=.281) and old-age participants (M=6.38, SE=.219; MD=-1.233, SE=.386, p<.05) and also between middle-adults (M=5.38, SE=.267) and old-age participants (M=6.38, SE=.219; MD=-1.001, SE=.394, p<.05). Also, there was a significant main effect of event importance in mixed emotional anger&compassion memories (F(2,105)=8.85, p<.05) Post-hoc comparisons revealed that the there was a significant difference between adolescents (M=4.43, SE=.272) and old-age participants (M=6.14, SE=.275; MD=-1.713, SE=.412, P<.05) and also between middle-adults (M=4.92, SE=.296) and old-age participants (M=6.14, SE=.275; MD=-1.219, SE=.419, P<.05).

When the main effect of previous rehearsal ratings in discrete emotional experiences investigated, there was a significant main effect of previous rehearsal ratings in happy memories (F(2,108)= 3.852, p<.05). Post-hoc comparisons revealed that the there was a significant difference between adolescents (M = 3.10, SE = .323) and middle-age participants (M = 4.41, SE = .362; MD = -1.308, SE =.226, p<.05). In sad memories there was also a main effect of previous rehearsal ratings (F(2,106)= 5.066, p<.05). According to Post-hoc comparisons, there was a significant difference between adolescents (M = 2.63, SE = .283) and old-age participants (M = 4.17, SE = .426; MD = 1.533, SE =.497, p<.05). In compassion memories, there was also a main effect of previous rehearsal ratings (F(2,107)= 4.496, p<.05).

According to Post-hoc comparisons, there was a significant difference between adolescents (M = 2.46, SE = .328) and middle-age participants (M = 3.84, SE = .369; MD = -1.364, SE = .022, <math>p < .05). In contrast to, significant main effect results in discrete happy, sad and compassion memories; the main effect of previous rehearsal ratings were insignificant only in anger memories (F(2,107)=2.784, p>.05).

When the previous rehearsal ratings were investigated in mixed emotional experiences, results shows that there is a significant main effect of previous rehearsal ratings in bitter-sweat memories (F(2,106)=3.728, p<.05). Post-hoc comparisons reveals that, there was a significant difference between adolescents (M=2.85, SE=.291) and old-age participants (M=4.62, SE=.704; MD=-1.767, SE=.649, p<.05). And finally, there was a significant main effect of previous rehearsal ratings in mixed emotional anger&compassion memories (F(2,106)=9.059, p<.05). According to Post-hoc comparisons, there was a significant difference between adolescents (M=2.07, SE=.245) and old-age participants (M=3.97, SE=.414; MD=-1.892, SE=.445, p<.05) and also between middle-adults (M=2.76, SE=.291) and old-age participants (M=3.97, SE=.414; MD=-1.209, SE=.455, p<.05)

TABLE 1. Mean ratings of memory properties by discrete emotions, mixed emotions and participant age

	Y	oung	_	<i>N</i>	1iddle	_	0	ld
Emotion	M	(SE)		M	(SE)		М	(SE)
Vividness								
Happy	6.12	(.15)		6.59	(.16)		6.69	(.18)
Sad	6.24 6.02	(.14) (.14)		6.67 6.51	(.15)		6.55 6.86	(.17)
Happy&Sad Anger	6.41	(.14) $(.12)$		6.43	(.15) (.13)		6.75	(.17) (.14)
Compassion	6.07	(.12) $(.15)$		6.62	(.16)		6.65	(.14)
Anger&Compassion		(.19)		6.40	(.20)		6.37	(.23)
Event details								
Нарру	5.95	(.19)		6.43	(.20)		6.27	(.22)
Sad	5.63	(.20)		6.51	(.21)		6.31	(.24)
Happy & Sad	5.51	(1.1)		5.83	(1.1)		8.65	(1.3)
Anger	5.73	(.23)		6.05	(.24)		5.75	(.27)
Compassion	5.70	(.22)		6.02	(.24)		6.10	(.27)
Anger&Compassion	5.56	(.26)		6.08	(.27)		5.51	(.31)
Emotional Distance								
Нарру	1.41	(.17)		1.35	(.18)		2.03	(.20)
Sad	3.09	(.36)		3.18	(.38)		3.96	(.43)
Happy & Sad	2.58	(.30)		3.64	(.31)		2.31	(.35)
Anger	3.09	(.35)		3.97	(.37)		3.24	(.42)
Compassion	1.87	(.27)		2.32	(.29)		2.55	(.33)
Anger&Compassion	2.95	(.33)		3.94	(.35)		3.93	(.40)

]	Young	<i>Mi</i>	ddle	<i>Ol</i>	d
Emotion	M	(SE)	M	(SE)	M	(SE)
Accessibility						
Нарру	3.82	(.31)	2.64	(.32)	1.65	(.36)
Sad	3.02	(.28)	2.37	(.30)	1.31	(.34)
Happy&Sad	4.14	(.33)	3.59	(.35)	2.44	(.40)
Anger	3.82	(.32)	3.59	(.34)	2.41	(.39)
Compassion	4.00	(.33)	3.16	(.34)	2.00	(.39)
Anger&Compassion	4.36	(.34)	4.45	(.36)	2.44	(.41)
Preoccupation with e	emotion	ıs				
Нарру	3.12	(.34)	3.27	(.35)	3.86	(.40)
Sad	3.85	(.31)	5.02	(.32)	5.48	(.37)
Happy & Sad	2.46	(.31)	3.29	(.32)	3.27	(.36)
Anger	3.39	(.33)	4.27	(.35)	4.86	(.39)
Compassion	3.04	(.34)	3.45	(.36)	4.10	(.41)
Anger&Compassion	2.80	(.31)	3.94	(.32)	3.89	(.37)

3.2 Happy, Sad, and Bittersweet Memories

3.2.1 Vividness:

The results indicated that there was a significant main effect of participant age on emotion type (F (2, 104) = 8.77, p< .05). Post-hoc tests demonstrated that there was a significant difference between adolescents (M = 6.130, SE = 0.97) and middle-age participants (M = 6.595, SE = .102; MD =-.46, SE =.141, p < .05). In addition, older adults (M = 6.701, SE = .116) remembered their happy, sad and bittersweet memories more vividly than adolescents (MD = -.57, SE =.151, p < .05) participants.

3.2.2 Accessibility:

There was a significant main effect of emotion type on accessibility ratings for happy, sad and bitter-sweet memories (F (2, 104) = 11. 196, p < .05). There was a significant difference between happy memories (M = 2.71, SE = .194) and bitter-sweet memories (M = 3.39, SE = .211; MD = -.685, SE = .244, p < .05). The difference between sad (M = 2.23, SE = .179) and bittersweet memories were also significant (MD = -1.15, SE = .251, p < .05). Thus, the experiences were most difficult to remember.

Also, there was a significant main effect of participant age on accessibility ratings (F (2, 104) = 15.810, p < .05). Post hoc comparisons indicated that there was a significant difference between adolescents (M = 3.66, SE = .213) and older age (M = 1.80, SE = .253; MD = 1.86, SE = .331, p < .05). Older participants accessed their memories easier than middle adults (M = 1.80, SE = .253; MD = -1.07, SE = .339, p < .05).

3.2.3 Event Detail:

There was no significant main effect of emotion type (F (1.069, 104) = .482, p > .05) on event detail. The interaction between emotion type and participant age was insignificant, either (F (2.139, 104) = 1.679, p > .05). Event detail ratings did not differ among different age groups (F (2,104) = 2.66, p > .05).

3.2.4 Emotional Distancing:

There was a significant main effect of emotion type on emotional distancing (F (1.822,104)= 27.702, p < .05). There was a significant difference between happy memories (M = 1.60, SE = .110) and bitter-sweet memories (M = 2.84, SE = .188; MD = -1.24, SE = .217, P < .05). The difference between happy memories (M = 1.60, SE = .110) and sad memories were also significant (M = 3.41, SE = .227; MD = -1.81, SE = .245, P < .05).

The interaction between emotion type and participant age was significant (F(4,104)=3.614, p<.05). Only in middle-aged group, there is a significant difference in emotional distancing in bitter-sweet memories (M=3.649, SE=.317) from both happy memories (M=1.351, SE=.185; MD=2.29, SE=.217, p<.05) and sad memories (M=3.189, SE=.382; MD=.46, SE=.284, p<.05). There was no significant main effect of participant age on emotional distancing ratings (F(2.104)=.014, p>.05).

3.2.5 Pre-occupation with emotions:

There is significant main effect of emotion type on pre-occupation with emotion ratings for happy, sad, bitter-sweet memories (F (2, 104) = 31.888, p< .05). There was a significant difference between happy memories (M = 3.41, SE = .214) and sad memories (M = 4.78, SE = .196; MD = -1.370, SE = .248, p < .05).

Also, there was a significant main effect of participant age on pre-occupation with emotion ratings (F (2,104) =5.312, p< 0.5). Post hoc comparisons indicated that there was a significant difference between adolescents (M =3.14, SE = .240.) and older age (M = 4.207, SE = .285; MD = -1.06, SE = .372, p < .05). Older participants focus more on the emotions than on the event than adolescents.

3.3 Anger, Compassion, and Anger & Compassion Memories

3.3.1 Vividness:

The results indicated that there was a significant main effect of participant age on vividness (F (2, 104) = 3.403, p< .05). Post-hoc tests demonstrated that there was a significant difference between adolescents (M = 6.15, SE = .118) and old-age participants (M = 6.59, SE = .140; MD =-.44, SE =.183, p < .05). There was no significant main effect of emotion type (F (2.961, 104) = .058, p > .05) on vividness. The interaction between emotion type and participant age was insignificant, either (F (1.101, 104) = .356, p > .05).

3.3.2 Accessibility:

There was a significant main effect of emotion type on accessibility ratings (F (2, 104) = 4.157, p< .05). There was a significant difference between compassion memories (M= 3.05, SE=.207) and mixed emotional anger and compassion memories (M= 3.75, SE=.216; MD =-704, SE = .258, p < .05).

Also, there was a significant main effect of participant age on accessibility ratings (F (2, 104) = 11.832, p < .05). Post hoc comparisons indicated that there was a significant difference between adolescents (M= 4.065, SE=.244) and older age (M = 2.87, SE = .290; MD = 1.78, SE = .379, p < .05) and also between middle-age (M=3.73, SE= .257) and older-age (M=2.28, SE= .290) participants. Older participants accessed their anger and compassion related memories easier than middle adults (MD = -1.45, SE = .387, p < .05) and adolescents (MD=-1.78, SE=.379, p<.05).

3.3.3 Event Detail:

There was no significant main effect of emotion type (F(2, 208) = .682, p > .05) on event detail. The interaction between emotion type and participant age was insignificant, either (F(4, 104) = .467, p > .05). Event detail ratings did not differ among different age groups (F(2, 104) = 1.361, p > .05).

3.3.4 Emotional Distancing:

There was a significant main effect of emotion type on emotional distancing ratings for anger, compassion and mixed emotional anger and compassion memories (F(2,104)=19.010, p<.05). There was a significant difference between compassion memories (M=3.41, SE=.214) and mixed emotional anger and compassion memories

(M = 3.609, SE = .212; MD = -1.35, SE = 237, p < .05). Also, the difference between anger memories (M=3.437, SE=.221) and compassion memories were significant (M=2.251, SE=.173; MD=1.186, SE=.249). The main effect of participant age on emotional distancing ratings was insignificant (F(2,104) = 2.751, p < 0.5).

3.3.5 Pre-Occupation with Emotions:

There was a significant main effect of emotion type on pre-occupation with emotion ratings for anger, compassion and mixed emotional anger and compassion memories (F (2,104) = 4.799, p < .05).

There was a significant difference between anger memories (M = 4.174, SE = .208) and mixed emotional anger and compassion memories (M=3.549, SE=.195; MD = -.70, SE =258, p < .05). Also, there was a significant main effect of participant age on pre-occupation with emotion ratings (F (2,104) = 5.312, p < .05). Post hoc comparisons indicated that there was a significant difference between adolescents (M =3.08, SE = .249) and older age (M = 4.28, SE = .296; MD= -1.21, SE=.387, p < .05). Older participants focus more on the emotions than on the event than adolescents.

CHAPTER 4

DISCUSSION

Previous research on emotion and autobiographical memory literature mostly relied on positive/negative dimensions or on discrete emotions. Even though a single experience such as a graduation ceremony can give rise to two opposing emotions at the same time there are very limited studies on how mixed emotions influence what we remember from those experiences. Also, research is very limited on how aging influences remembering of mixed emotional experiences. For example, some studies indicated that the experience of mixed emotions such as bittersweat experiences increase with perceived constraints on time (Ersner-Hershfield, Mikels, Sullivan, and Carstensen, 2008) but other mixed emotional experiences have not been investigated yet.

The present study investigated age differences in remembering mixed emotional experiences. Particularly, late adolescents, middle adults and older people were asked to remember their memories associated with discrete and mixed emotions. Later, they were asked to assess how they remember these experiences. The results mianly indicated that older adults provided higher ratings for most of the recall properties of both discrete and mixed emotional experiences than younger adults and adolescents. Furthermore, mixed emotional memories received lower rating on most of the memory properties than discrete emotional properties regardless of participant age.

4.1 Differences between Phenomenological Properties of Memories Associated with Discrete Emotions.

There was no phenomenological difference between recalling discrete happy and sad in terms of the vividness of the memories and the remembered details of events. This means that all people remembered their happy and sad memories with a similar detail and vividness. Results also demonstrated that people access their sad memories more easily and suppress their emotions more in sad memories than in happy memories. This result is consistent with previous research which indicated that inhibition is associated with increased accessibility of negative memories (Wisco, B. E., & Nolen-Hoeksema, S., 2010).

We also found that people are more pre-occupied with their emotions when recalling their sad memories as compared to recalling their happy memories. This finding is consistent with other studies which indicated that when recalling and describing sad experiences individual deal with negative consequences that can not be altered (Levine, 1996; Smith & Lazarus, 1993). In other words, when people remember their sad memories, they could not get out of the experience of sad feeling. It may also be due to using less heuristics and applying more analytic and effortful information processing strategies in recall (Levine, 1996; Stein & Levine, 1990).

When we compared anger memories to compassion memories, they received similar ratings on most memory properties. They were different only on emotional distancing memories with anger being harder to suppress than compassion. One reason why there was no difference between remembering angry experiences and compassionate experiences could be due to both emotions arise from a negative situation. Therefore, the negative contents of the events associated with these two emotional experiences may lead to similar phenomenological memory ratings. Indeed, anger as an emotional experience received higher rating than compassion in terms of how hard it was ignoring the emotions felt for the participant but memories associated with these two emotions received similar recall properties.

4.2 Differences between Phenomenological Properties of Memories Associated with Discrete Emotions and Mixed Emotions.

Results showed that there was no difference between discrete happy, sad and bittersweet experiences in terms of vividness and event details. This means that all people remember their both discrete happy, sad and bitter-sweet memories with a similar detail and vividness. When the accessibility ratings are considered, discrete happy and sad memories are remembered more easily than bitter-sweet memories. This finding can be a consequence of experiencing a felt-conflict in both remembering mixed emotional experiences (Williams and Aaker 2002). Because it may be difficult to remember these mixed emotional memories more easily, since they feel an inconsistency from the result of the emotional complexity that mixed emotion brings. Accordingly, the violations in memory evaluations for mixed emotional experiences more likely occur than from discrete emotional experiences. Also, emotions related with bitter-sweet memories were rated as being harder to ignore than happy memories but easier than sad memories.

According to results, people remember discrete compassion memories more easily than mixed emotional anger and compassion memories. Mixed emotional anger and compassion memories are more likely to be ignored than discrete anger and discrete compassion memories. People are more pre-occupied with emotions while recalling anger memories than recalling mixed emotional anger and compassion memories. These results imply that subjective experience of how a person remembers an event decreases when the event creates mixed feelings. One reason could be that when people have conflicting feelings about an event they may attribute this contradiction to gaps in their minds about the event details. Therefore, they rated the events associated with mixed emotions as less vivid, accessible, or detailed than those associated with discrete emotions. This is consistent with the

finding that some individuals feel conflict or discomfort as a result of mixed feelings (Cacioppo et al., 1997; Priester and Petty 1996).

4.3 Differences between the phenomenological properties of memories associated with discrete emotions across age groups

Results related to current research question indicated age differences among discrete emotions for the memory properties of vividness, accesibility and pre-occupation with emotions ratings. This difference indicates that older people evaluated their discrete emotional memories as more vivid, more accesible and they focused more on their emotions during retrieval than in middle adults and adolescents. However, emotional distancing and event detail properties did not differ among different age groups for discrete emotions.

According to SST Theory, older adults should provide higher ratings for their happy memories than their sad memories. However, our results did not support this prediction. Furthermore, our results were consistent with previous autobiographical memory research (Uzer & Gülgoz, 2015; Comblain, D'Argembeau, 2005) which have found no differences between positive and negative memories across age groups. One reason why sad memories are remembered as well as happy memories among older adults could be that sad memories are also associated with meaningful endings (e.g., dead, illness, etc.) which are important for older adults or for people who perceive their remaining time as limited.

SST Theory would also predict that compassionate memories should receive higher ratings than anger memories. However, our results did not support this prediction either. As noted before, one reason could be due to negative contents of the events associated with the two emotions.

4.4 Differences between the phenomenological properties of memories associated with discrete emotions and mixed emotions across age groups

Last research question indicated that the only significant interaction was found only in middle-adults that they only inhibit their bittersweat emotions better than adolescents and old adults. According to this interaction effect, only middle-aged people use more emotional inhibition than two other age groups when the memories include bitter-sweet emotions. This can be as a result of the time difference between the event age and the participant age in recall. For example, when asked to 60-year-old people about their life events, they generally remember and report memories from their nearly between 15-30 years of times that considered as reminiscence bump in autobiographical memory researches (Dickson, Pillemer, & Bruehl, 2011; Koppel & Berntsen, 2014). Most of these memories related with transitional events (e.g., marriage, graduation) and these events are especially happening between ages 20-25. Therefore, for a 40 aged person, these bitter-sweet memories become a recent one to remember easily and have a recent motivation to cope with that emotion with different emotion coping strategies such as suppressing them. Also, middle-aged people experienced transitional events more than younger people because middle-ages are characterized as productive life times. When compared with older ages, these peoples' memories are more recent and memories are more intense. Therefore, a 40-year-old may remember a transitional event that he/she experienced at 25 years better than the retrieval of the memory of 65+ aged people.

From adolescent perspective, most of the transitions are not experienced at their ages or the experienced transitional events are few. Because, adolescence is characterized as the end of the childhood and transitional events encountered in the last few years (e.g., graduation, moving from dormitory or city). Also, young people between the ages of 18-22 are in an intense emotional development process when compared to other age groups. For this

reason, it can be said that rather than suppressing mixed emotional memories, they may reevaluate and create a new meaning and progress through other ages in order to regulate themselves.

In older aged group, there may be more experience of transitional events related to the chronological age and experiencing more confrontations of life events than the other two other age groups. Since they have had many important events in their lives until this age, it may be difficult to remember and evaluate the specific events required for each emotion. In addition, the elderly people have so far passed through the transitional events that the intensities and the importance of the events may fade as time passed. For example, the marriage day can have different meanings and emotional intensity for a person aged 65 and for a person aged 40. In this case, we expect the 40-year-olds to give more ratings to such an event than older people.

The inhibition of emotions only occurs in middle aged people and only in bitter-sweet memories. It may be a result of the unmaturity of cognition to tolerate ambiguity related to conflicting happy and sad information. Because, emotions of happiness and sadness are mostly related to self accomplishments, values and expectations from the self. As a result, they may not adopt adaptive emotional responses or cognitive evaluations which may force them to make self-critism of bitter-sweat experiences. In addition, middle age people experience not only many transitional events but also they are in a developmental transitional period which emerges; mid-life transition crisis. This transitional crisis may also forces people to inhibit bitter-sweat memories. As a result, they criticize themselves and their lifes more rather than their relationship with others.

But why does the same inhibition not present in mixed emotional anger and compassion experiences? One reason could be that people's bitter-sweet memories are often associated with their selves. On the other hand, emotions of anger and compassion are

generally experienced for other person. In bitter-sweet memories, middle-adults may require more self-evaluation and we can expect from them to inhibit the bitter-sweet emotion because the consequences of the event are more difficult to change. Because, people in this period may begin to criticize themselves and their life conditions more than other age groups. In addition, as mentioned before ages between 40-45 are identified as mid-life transition (Lachman.,2003). In this period, the individual carries out what he/she accomplished in his life, evaluates contributions to themselves and also to other, evaluate their talents and values. There is a fundamental change in the life line of the individual in the young age about future dreams and expectations. This period is characterized as experiencing threaths to self, challanges to life and crisis (Levinson, 1996). Also, individual fulfills the task of integrating contradictive concepts such as life and death, youth and old age, loyality and separation, constructivism and destructiveness (Levinson 1986, 1996). So, they may enter into the new outbursts brought about by this age and in this period they can experience deep transformations and re-question their social roles.

Similarly, people may want to keep such memories as a nostalgic memory with the maturity in cognition. On the other hand, in anger and compassion memories, the subject of the experiences and emotions are different than in bitter-sweet memories. In anger and compassion memories, emotions are felt against someone else. In order to gain experience from the event, the inhibition of emotions should be less that enable people to gain experience from the conflict and provides a regulation of their attitudes in the face of similar future events.

According to memory properties no significant results were found for these two age groups for the difference between discrete anger, compassion and mixed emotional anger and compassion memories. In other words, it was observed that anger/compassion related

emotions did not show age-dependent changes based on adolescents and middle-age in memory properties.

Overall of the results suggested that, discrete emotional experiences are remembered better than mixed emotions which is consistent with the previous findings that the effect of memory decay that causes mixed emotional experiences evaluated as less mixed over time. Because the felt conflict that occurs as a result of that mixed feelings eagers people to solve the conflict and adopt a unipolar emotion. Related to this finding, people use more emotional distancing in recalling mixed emotions than discrete ones which is also consistent with previous study results that having a tendency to hold unipolarity of emotions. So, over time by adopting a unipolar emotion, memory for mixed emotional experiences fades and becomes increasingly difficult to remember (Aaker, Drolet, & Griffin, 2008). Age differences in emotional distancing shows that older adults inhibit their emotion easier than younger groups. Middle adults inhibits bittersweat emotions better than adolescents and older people even though they consider their emotional feelings is important. Additionally, older participants found to be focus on emotions more than the event than younger adolescents.

But, our results are not consistent with socioemotional theory that made predictions for increased emotional complexity through aging. Also, our result is not supported by socioemotional selectivity theory which claims that as people aged, they report less negative experiences in recall. But our results did not supported by this prediction. It may be resulted from older peoples' higher ratings of their emotional memories than in middle adults and adolescents. This high ratings can be a result of tendency of over-rating and social desirability in older participants. They may not want to see the link between their age and recall performance as weak which may reflect a fear of being Alzheimer.

These results indicated that phenomenological characteristics of autobiographical memories demonstrated variation related to discrete and mixed emotions. However, these differences lack from theoretical support due to insufficient literature on both discrete and mixed emotions and autobiographical memory characteristics.

The present study contributed to the literature in two ways. First, mixed emotional experiences was studied by creating different mixed emotional combinations (bittersweat and anger/compassion) to investigate the retrieval properties related with mixed emotions.

Second, the recall properties (i.e., vividness, event detail, accessibility, emotional distancing, pre-occupation with emotions) about experiences related to mixed and discrete emotions were compared across different age groups such as among adolescents, adults and elder people.

This provides an information about how do recall properties (e.g. vividness, accessibility) of mixed emotional events (e.g. bittersweet) differ among late adolescence, middle adulthood and older adulthood.

4.5 Clinical Implication of the study

The findings of the present study may have clinical implications. Generally, the benefits and drawbacks of both positive and negative emotional experiences on physical and psychological well-being have been investigated (e.g., Lyubomirsky et al., 2005; Selye., 1956). But, less is mentioned about the experience of mixed emotions that may also affect well-being.

In psychotherapies, psychologist mostly engaged with emotional experiences and their mental representations in people with all ages. Regardless of the psychological approach to treatment and age, all psychotherapies work with patients' emotions that are related with individual psychological well-being.

The findings of the present study may have clinical implications. Generally, the benefits and drawbacks of both positive and negative emotional experiences on physical and psychological well-being have been investigated. But, less is mentioned about the recall of mixed emotions that may also affect well-being. In psychotherapies, as a psychologists we mostly engaged with emotional experiences and their mental representations in people with all ages. Regardless of the psychological approach to treatment, all psychotherapists work with clients' emotions that are related with individual psychological well-being.

Since cognition and emotion are so intertwined, it seems difficult to decide which one is the dominant or primary for mood. Particularly psychopathologic individuals (e.g. people with depression, anxiety, obsessive-compulsive disorder, post-traumatic stress disorder) show differences in their memory properties and memory biases both in encoding of online experience and in recall of these past experiences. According to Cognitive Theory, cognitive biases present themselves in tasks that assess perception, attention, and memory. Zajonc (1980; 1984) claims that changes in emotions related to emotional memories in therapies would bring cognitive change related to that past event; Lazarus (1982; 1984) stated that cognitive change will bring emotional change on past experience. So, the information processing approach is mainly based on mood disorders, the results of a number of distortions and biases related to information processing process. So, these memory processes should be assessed and used as a tool in the therapy process to understand how cognitive processes work during the processing of information and recall about the experiences, and see their reflection in terms of memory properties. Because Cognitive and Behavioral Therapy Approach intervention principles, which are based on cognitive restructuring, are based largely on data obtained from information processing theories.

What we have seen in terms of clinical outcomes from our study is, in our daily life mixed emotions are hard to remember. But, from more clinical perspective, specifically in

people with depression; besides the mixed experiences, their positive emotional events are even more difficult to remember than negative emotional events. So, depression can be worked by not only reducing the effect of negative emotions, but also by creating positive emotions in it which may foster them to gain strengths and personal meaning from the experiences by healthy coping with stressors. Being better able to learn and cope with life's ups and downs can be gained by using different coping strategies such as re-constructions of beliefs or re-meaning making from these experiences such as taking good with the bad.

In addition age differences indicates that; as people aged they remember their emotional memories better. So, proceeding through emotional memories can contribute to the therapy process when working with older people.

4.6 Limitations and Future Suggestions

This study has some limitations and the findings of the current study needs further investigation. In the current study self rating reports used to assess the memory properties according to participants brief descriptions of emotional memories. Accordingly both overrating tendency and subjective evaluations made it difficult for us to investigate the actual effects of and differences between mixed emotions and discrete emotions on autobiographical memory in a meaningful way. Thus, more objective and implicit measurement use such as event narratives can be a suggestion for future studies. For example, according to the memory narration, autobiographical memory properties (e.g. event detail and vividness) can be analysed and may provide more information. Another methodological solution can be, participants may be asked to remember many memories of discrete and mixed emotional happy / sad / anger / compassion memories as possible as within a minute. Thus, this time based measurement may provide future researchers to gain more information which is based on performance rather than the effect of age.

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Appendix A: Socio-demographic Information

Doğum Tarihiniz:	((Gün, ay, yıl olarak)				
Cinsiyet: Erkek:	Kadın:					
Medeni durumu: Bekar	Evli	Boşanmış	Eş Vefatı			
Eğitim durumu:						
İlkokul Ortaokul	_ Lise _	Üniversite _	Yüksek lisans/Doktora			
Gelir Düzevi: Düsük	Orta	Yüksek				

Appendix B: Instruction

Bu çalışmada sizden başınızdan geçen bazı anılarınızıı anlatmanızı isteyeceğim. Sonra bazı anılarla ilgili bazı sorular soracağım. Soracağım soruların doğru yada yanlış cevabı yoktur. Önemli olan size en uygun gelen cevabı vermenizdir. Bu anıları sormaya başlamadan önce sizinle başka bir ufak bir alıştırma yapacağız. Bu alıştırmada size bazı sorular soracağım ve yanıtlamanızı isteyeceğim.

Bana anlatacağınız anıların bazı özelliklere sahip olması gerekiyor. Bu özelliklerden birincisi anınızın sizin başınızdan geçmiş olması yada bire bir tanık olduğunuz bir anı olması gereklidir. İkincisi, anlatcağınız anı belirli bir günde ve yerde meydana gelmiş olmalıdır. Örneğin, "Hergün kahvaltı yaparım" gibi genel ve geniş zamana yayılmış anılar yerine

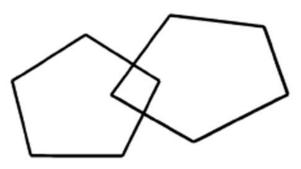
"Geçen ay, bir Pazar günündeki kahvaltıda masamız çok kalabalıktı" gibi kısa sürmüş ve belirgin olan anılara ihtiyacım var. Genel anılar yerine belirgin anılarınızı hatırlamak için "Bir gün...." veya "Bir keresinde...." diyerek anınıza başlamak bunları hatırlamanızı kolaylaştırır.

Anlatacağınız bu anınız bir günden uzun sürmemiş olmalı ve üzerinden en az 2 hafta geçmiş olmalıdır. Yani hayatınızın herhangi bir döneminden gelebilir (çocukluk, gençlik, geçen sene, geçen ay vs) ama son 2 hafta içinde olmuş olan bir anı olmasın. Lütfen anlatacağınız anıların bu özelliklerine uygun olmasına dikkat edin.

Birazdan sizden ayrı ayrı duygulara dair anılarınızı kısaca anlatmanızı isteyeceğim. Örneğin, size kıskançlık kelimesini verirsem bana kıskançlıkla ilgili bir anınızı anlatmanız gerekecek. Şimdi size bazı anılarınızla ilgili bazı sorular sormaya başlayacağım. Anlamadığınız bir şey olursa lütfen bana sorun.

Appendix C. Mini-Mental State Examination Test (MMSE)

Ad Soyad:	Tarih:	Yaş:
Eğitim (yıl):	Meslek:	Aktif El:
T. Puan:		
YÖNELİM (Toplam puan 10)		
Hangi yıl içindeyiz		
Hangi mevsimdeyiz		
Hangi aydayız		
Bu gün ayın kaçı		
Hangi gündeyiz		
Hangi ülkede yaşıyoruz		
Şu an hangi şehirde bulunmaktı	asınız	
, . ,	sidir	
,	idir	
Şu an bu binada kaçıncı kattası	nız	
KAYIT HAFIZASI (Toplam p	uan 3)	
Size birazdan söyleyeceğim üç	ismi dikkatlice dinleyip ben bitirdikten	sonra tekrarlayın
(Masa, Bayrak, Elbise) (20 sn s	ure tanınır) Her doğru isim 1 puan	
DIKKAT ve HESAP YAPMA	(Toplam puan 5)	
100'den geriye doğru 7 çıkartar	ak gidin. Dur deyinceye kadar devam e	din.
Her doğru işlem 1 puan. (100, 9	93, 86, 79, 72, 65)	
HATIRLAMA (Toplam puan 3)	
Yukarıda tekrar ettiğiniz kelime	eleri hatırlıyor musunuz? Hatırladıklarır	nızı söyleyin.
(Masa, Bayrak, Elbise)		
LISAN (Toplam puan 9)		
	imleri nedir? (saat, kalem) 2 puan (20 s	
 b) Şimdi size söyleyeceğim cür 	nleyi dikkatle dinleyin ve ben bitirdikte	en sonra tekrar
	orum" (10 sn tut) 1 puan	
	ızı isteyeceğim, beni dikkatle dinleyin v	
	sag/sol elinizle alın, iki elinizle ikiye k	The state of the s
	3, stire 30 sn, her bir doğru işlem 1 pua	
	im. Okuyun ve yazıda söylenen şeyi ya " (arka sayfada)	
	nıza gelen anlamlı bir cümleyi yazın (1	
f) Size eöstereceĕim seklin avn	ısını çizin. (arka sayfada) (1 puan)	



Appendix D. Autobiographical Memory Characteristics Questionnaire (AMCQ)

Şimdi, bana aktardığınız anı ile ilgili size kimi sorular soracağım. Lütfen her bir ifadeyi bu anınızı düşünerek dinleyin ve her bir ifadenin sizi ne ölçüde tanımladığını 7 aralıklı ölçek üzerinde değerlendirin.

1	2	3	4	5	6	7
Hiç Katılmıyorum	Katılmıyorum	Biraz Katılmıyorum	Kararsızım	Biraz Katılıyorum	Katılıyorum	Kesinlikle Katılıyorum

1.	Bu olayı çok net bir şekilde hatırlarım.	1	2	3	4	5	6	7
2.	Bu olayın hatırladığım gibi gerçekleştiğinden eminim.	1	2	3	4	5	6	7
3.	Bu olayı hatırlayabilmek için bir süre düşünmem gerekti. (T)	1	2	3	4	5	6	7
4.	Bu olayı sıklıkla arkadaşlarıma ya da aileme anlatırım.	1	2	3	4	5	6	7
5.	Bu olayı düşünürken, sadece ne olduğunu bilmekten ziyade olayı gerçekten hatırlarım.	1	2	3	4	5	6	7
6.	Olayı bir bütün olarak değerlendirdiğimde, hissettiğim duygular oldukça olumsuzdur. (T)	1	2	3	4	5	6	7
7.	Bu olayı anımsarken, hissettiklerim önemli olsalar da yok saymayı tercih ederim.	1	2	3	4	5	6	7
8.	Bu olayı anımsarken, hissettiklerim dışında başka bir şeye odaklanamam.	1	2	3	4	5	6	7

(T) Ters çevrilmesi gereken maddeler

9. Bu olay sizin için ne kadar önemli?

1	2	3	4	5	6	7
Çok						Çok
önemsiz						önemli

10. Bu olayı yaşadığınızda neler hissetmiştiniz?

a) Mutluluk

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

	••
1 \	\sim α
n۱	()TVA
b)	Ofke

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

c) Üzüntü

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

d) Şefkat

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

e) Utanç

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

f) Haz

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

11. **Şuanda** bu olayı hatırlarken ne hissediyorsunuz?

a) Mutluluk

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

b) Öfke

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

c) Üzüntü

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

d) Şefkat

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

e) Utanç

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

f) Haz

1	2	3	4	5	6	7
Hiç						Bugüne kadar hissettiğim en yoğun duygusal durum

12. Bu olayı ne kadar ayrıntılı hatırlıyorsunuz?

1	2	3	4	5	6	7
Genel hatlarıyla hatırlıyorum						En ince ayrıntısına kadar, her yönüyle hatırlıyorum

13. Bu olay **şuanda** sizin için ne kadar olumlu ya da ne kadar olumsuz bir olay?

-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7
Çok olumsuz														Çok olumlu

14. Bu olay **yaşadığınız sırada** sizin için ne kadar olumlu ya da ne kadar olumsuz bir olaydı?

-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7
Çok olumsuz														Çok olumlu

15. Bazı olaylarda insanlar kendilerini olaya katılmış biri olarak, diğerlerinde ise kendilerini dışardan seyreden biri olarak hatırlarlar. Siz bu olayı hangi biçimde hatırlıyorsunuz?

1	2
Olayın içinde	Olaya dışardan
yer alıyor gibi	bakıyor gibi

16.	Bu olay hangi tarihte meydana geldi?
	□ Kesin □ Tahmini

Appendix E: Beck Depression Inventory (BDE)

	Yaş:		Uygulama Tarihi:
	form son bir (1) hafta içerisinde kendinizi nasıl hissettiğinizi araştır. şısındaki dört cevabı dikkatlice okuduktan sonra, size en çok uyan, yan		
<u> </u>	 (0) Üzgün ve sıkıntılı değilim. (1) Kendimi üzüntülü ve sıkıntılı hissediyorum. (2) Hep üzüntülü ve sıkıntılıyım. Bundan kurtulamıyorum. (3) O kadar üzgün ve sıkıntılıyım ki, artık dayanamıyorum. 	11	 (o) Başkalarıyla görüşme, konuşma isteğimi kaybetmedim. (1) Eskisi kadar insanlarla birlikte olmak istemiyorum. (2) Birileriyle görüşüp konuşmak hiç içimden gelmiyor. (3) Artık çevremde hiç kimseyi istemiyorum.
2	 (0)Gelecek hakkında umutsuz ve karamsar değilim. (1)Gelecek için karamsarım. (2)Gelecekten beklediğim hiçbir şey yok. (3)Gelecek hakkında umutsuzum ve sanki hiçbir şey düzelmeyecekmiş gibi geliyor. 	12	 (0) Karar verirken eskisinden fazla güçlük çekmiyorum. (1) Eskiden olduğu kadar kolay karar veremiyorum. (2) Eskiye kıyasla karar vermekte çok güçlük çekiyorum. (3) Artık hiçbir konuda karar veremiyorum.
1	 (0) Kendimi başarısız biri olarak görmüyorum. (1) Başkalarından daha başarısız olduğumu hissediyorum. (2) Geçmişe baktığımda başarısızlıklarla dolu olduğunu görüyorum. (3) Kendimi tümüyle başarısız bir insan olarak görüyorum. (0) Her şeyden eskisi kadar zevk alıyorum. (1) Birçok şeyden eskiden olduğu gibi zevk alamıyorum. (2) Artık hiçbir şey bana tam anlamıyla zevk vermiyor. (3) Her şeyden sıkılıyorum. 	13 14	 (0) Her zamankinden farklı göründüğümü sanmıyorum. (1) Aynada kendime her zamankinden kötü görünüyorum. (2) Aynaya baktığımda kendimi yaşlanmış ve çirkinleşmiş buluyorum. (3) Kendimi çok çirkin buluyorum. (6) Eskisi kadar iyi iş güç yapabiliyorum. (1) Her zaman yaptığım işler şimdi gözümde büyüyor. (2) Ufacık bir işi bile kendimi çok zorlayarak yapabiliyorum. (3) Artık hiçbir iş yapamıyorum.
5	 (0) Kendimi herhangi bir biçimde suçlu hissetmiyorum. (1) Kendimi zaman zaman suçluhissediyorum. (2) Çoğu zaman kendimi suçluhissediyorum. (3) Kendimi her zaman suçluhissediyorum. 	15	 (o) Uykum her zamanki gibi. (1) Eskisi gibi uyuyamıyorum. (2)Her zamankinden 1-2 saat önce uyanıyorum ve kolay kolay tekrar uykuya dalamıyorum (3)Sabahları çok erken uyanıyorum ve bir daha uyuyamıyorum.
5	 (o) Kendimden memnunum. (1) Kendimden pek memnun değilim. (2) Kendime kızgınım. (3) Kendimden nefrete ediyorum. 	16	 (o) Kendimi her zamankinden yorgun hissetmiyorum. (1) Eskiye oranla daha çabuk yoruluyorum. (2) Her şey beni yoruyor. (3) Kendimi hiçbir şey yapamayacak kadar yorgun ve bitkin hissediyorum.
7	(0)Başkalarından daha kötü olduğumu sanmıyorum. (1)Hatalarım ve zayıf taraflarım olduğunu düşünüyorum. (2)Hatalarımdan dolayı kendimden utanıyorum. (3)Herşeyi yanlış yapıyormuşum gibi geliyor ve hep kendimi kabahatli buluyorum	17	hissediyorum. (o) İştahım her zamanki gibi. (1) Eskisinden daha iştahsızım. (2) İştahım çok azaldı. (3) Hiçbir şey yiyemiyorum.
3	 (o) Kendimi öldürmek gibi düşüncülerim yok. (1) Kimi zaman kendimi öldürmeyi düşündüğüm oluyor ama yapmıyorum. (2) Kendimi öldürmek isterdim. 	18	 (o) Son zamanlarda zayıflamadım. (1) Zayıflamaya çalışmadığım halde en az 2 Kg verdim. (2) Zayıflamaya çalışmadığım halde en az 4 Kg verdim. (3) Zayıflamaya çalışmadığım halde en az 6 Kg verdim.
•	 (3) Fırsatını bulsam kendimi öldürürüm. (0) İçimden ağlamak geldiği pek olmuyor. (1) Zaman zaman içimden ağlamak geliyor. (2) Çoğu zaman ağlıyorum. (3) Eskiden ağlayabilirdim ama şimdi istesem de ağlayamıyorum 	19	(o) Sağlığımla ilgili kaygılarım yok. (1) Ağrılar, mide sancıları, kabızlık gibi şikayetlerim oluyor ve bunlar beni tasalandırıyor. (2)Sağlığımın bozulmasından çok kaygılanıyorum ve kafamı başka şeylere vermekte zorlanıyorum. (3)Sağlık durumum kafama o kadar takılıyor ki, başka hiçbir şey düşünemiyorum.
10	 (0) Her zaman olduğumdan daha canı sıkkın ve sinirli değilim. (1) Eskisine oranla daha kolay canım sıkılıyor ve kızıyorum. (2) Her şey canımı sıkıyor ve kendimi hep sinirli hissediyorum. (3) Canımı sıkan şeylere bile artık kızamıyorum. 	20	 (o) Sekse karşı ilgimde herhangi bir değişiklik yok. (1) Eskisine oranla sekse ilgim az. (2) Cinsel isteğim çok azaldı. (3) Hiç cinsel istek duymuyorum.
		21	 (0) Cezalandırılması gereken şeyler yapığımı sanmıyorum. (1) Yaptıklarımdan dolayı cezalandırılabileceğimi düşünüyorum. (2) Cezamı çekmeyi bekliyorum. (3) sanki cezamı bulmuşum gibi geliyor.

Appendix F: Geriatric Depression Inventory (GDI)

Yaş:	Cinsiyet:	Tarih:	
ı aş.	Chistyet.	i ai iii.	

"Geçen hafta kendinizi nasıl hissettiniz? Aşağıdaki soruları kendiniz için uygun olan yanıtı işaretleyerek yanıtlayınız."

1.	Genel olarak hayatınızdan memnun musunuz?	Evet / Hayır
2.	Kişisel aktivitelerinizin ve ilgilerinizin çoğunu bıraktınız mı?	Evet / Hayır
3.	Hayatınızın anlamsız olduğunu düşünüyor musunuz?	Evet / Hayır
4.	Sıklıkla canınız sıkılır mı?	Evet / Hayır
5.	Keyfiniz çoğu zaman yerinde midir?	Evet / Hayır
6.	Sanki size kötü bir şey olacakmış gibi bir korku yaşıyor musunuz?	Evet / Hayır
7.	Kendinizi çoğu zaman mutlu hisseder misiniz?	Evet / Hayır
8.	Sıklıkla çaresiz hisseder misiniz?	Evet / Hayır
9.	Dışarı çıkıp değişik şeyler yapmaktansa evde kalmayı mı tercih edersiniz?	Evet / Hayır
10.	Birçok kişiye göre daha fazla unutkanlığınız var mı?	Evet / Hayır
11.	Hayatta olmak sizin için güzel bir şey midir?	Evet / Hayır
12.	Kendinizi oldukça değersiz buluyor musunuz?	Evet / Hayır
13.	Gücünüz kuvvetiniz yerinde mi?	Evet / Hayır
14.	Durumunuz size ümitsiz geliyor mu?	Evet / Hayır
15.	Çoğu insanın sizden daha iyi durumda olduğunu düşünüyor musunuz?	Evet / Hayır

Appendix G: Informed Consent



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Tel: 90 (312) 585 00 00 Faks: 90 (312) 418 41 48

Sayın Katılımcı,

Bu araştırma, TED Üniversitesi, Psikoloji Bölümü'nde yüksek lisans öğrencisi Selen DEMİR tarafından yürütülmektedir. Araştırmanın amacı **karışık duygu içeren deneyimlerin hatırlanmasında yaş farklılıklarına bakmaktır.** Bu çalışmanın katılımcıları 18-22 yaşları arasında olan ergenler, 40-44 yaşları arasındaki yetişkinler ve 65 yaş üstü yetişkinlerden oluşturmaktadır.

Bu araştırmaya katılımınızı onayladığınız taktirde, projenin katılımcısı olacaksınız. Çalışma kapsamında, araştırma ile ilgili ölçekleri doldurmanız istenecektir. Çalışma süresince ve sonrasında kimlik bilgileriniz proje dışındaki hiç kimseyle izniniz dışında paylaşılmayacaktır. Bu çalışma kapsamında elde edilecek olan bilimsel bilgiler sadece araştırmacılar tarafından yapılan bilimsel yayınlarda, sunumlarda ve eğitim amaçlı çevrimiçi bir ortamda paylaşılacaktır. Toplanan veriler isiminiz silinerek, bilgisayarda şifreli bir dosyada tutulacaktır.

Bu çalışmaya katılım gönüllük esasına dayalıdır. Bu projeye katılımınız karışık duygu içeren deneyimlerin hatırlanmasında yaş farklılıkları konusunda bilgilenmenize katkı sağlayabilir.

Uygulamada yer alan hiçbir aşama kişisel rahatsızlık verecek nitelikte değildir. Ancak herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz, uygulamaları nedenini açıklamaksızın yarıda bırakıp araştırmadan çıkmakta serbestsiniz. Böyle bir durumda vermiş olduğunuz bilgilerin araştırmacı tarafından kullanılması ancak sizin onayınızla mümkün olacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederim.

Çalışma hakkında daha fazla bilgi almak ve yanıtlanmasını istediğiniz sorularınız için araştırmayı yürüten Selen Demir (E-posta: selen.demir@tedu.edu.tr) ve Yrd. Doç. Dr. Tuğba Uzer-Yıldız (tugba.uzer@tedu.edu.tr) ile iletişim kurabilirsiniz.

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Bu proje kapsamında gereken ölçeklerin doldurulmasında yer alacağımı biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum.

Projeye katılmak istiyorum	Evet / Hayır
Ad Soyad:	
Katılımcının İmzası:	
Tarih	
Teşekkürler,	
Araştırmacının adı, soyadı ve imzası	
Selen Demir	
Ziva Gökalp Cad. No:48 Kolei/ Cankava ANKARA.	

Araştırmaya katılımınız ve haklarınızın korunmasına yönelik sorularınız varsa ya da herhangi bir şekilde risk altında olduğunuza veya strese maruz kalacağına inanıyorsanız TED Üniversitesi İnsan Araştırmaları Etik Kurulu'na (0312 585 00 11) telefon numarasından veya <u>iaek@tedu.edu.tr</u>eposta adresinden ulaşabilirsiniz.

Appendix H: Informed Consent for Post-participation



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KATILIM SONRASI BİLGİ FORMU

Bu araştırma daha önce de belirtildiği gibi TED Üniversitesi Psikoloji Bölümü Yüksek Lisans öğrencisi Selen Demir tarafından Yrd. Doç. Dr. Tuğba Uzer-Yıldız danışmanlığındaki yüksek lisans tezi kapsamında yürütülmektedir. Çalışmanın amacı karışık duygu deneyimlerinin hatırlanmasındaki yaş farklılıklarını, bu duygusal anıların bazı fenomenolojik özelliklerini ve duygu yoğunluklarını incelemektir.

Aynı anda iki farklı veya aynı duygunun hissedilmesi durumuna karışık duyguların deneyimlenmesi denilmektedir. Alan yazın, karışık duygular konusunu yeni bir konu olarak ele almaktadır ve karışık duyguların başka konularla olan ilişkileri henüz çalışılmaktadır. Karışık duygu olarak adlandırılan bu deneyimlerin hatırlanmasında yaş faktörü kendisini farklı şekillerde gösterebilir. Karışık duygu deneyimlerinin hatırlanmasındaki yaş farklılıkları ve duygu deneyimlerine bağlı anıların hatırlanma özelliklerini incelemek, bu araştırmanın esas amacını oluşturmaktadır. Farklı yaş gruplarından kişilerin, karışık duygu deneyimlerini hatırlamaları istenerek, bu deneyimler bazı özellikleri bakımından birbirleriyle ve yaş grupları ile karşılaştırılacaktır. Çalışmada ergen, yetişkin ve yaşlı kişilerden 9 farklı duyguya ilişkin anıları hatırlamaları ve bu anıları paylaşarak, ilişkili soruları cevaplamaları beklenmektedir.

Bu sebeple, çalışmanın amacı " karışık duygu deneyimlerinin hatırlanmasında yaş farklılıklarına bakılması" olarak sunulmuş; bu deneyimlerin hatırlanması sırasında, anıların hatırlanma özelliklerine bakıldığı araştırmanın doğası gereği başlangıçta sizlerle paylaşılmamıştır.

Bu çalışmadan alınacak ilk verilerin Mayıs 2018 sonunda elde edilmesi amaçlanmaktadır. Elde edilen bilgiler <u>sadece</u> bilimsel araştırma ve yazılarda kullanılacaktır. Çalışmanın sağlıklı ilerleyebilmesi ve bulguların güvenilir olması için çalışmaya katılacağını bildiğiniz diğer kişilerle çalışma ile ilgili detaylı <u>bilgi paylaşımında bulunmamanızı</u> dileriz. Bu araştırmaya katıldığınız için tekrar çok teşekkür ederiz. Araştırmanın sonuçlarını öğrenmek ya da daha fazla bilgi almak için aşağıdaki isimlere başvurabilirsiniz.

Selen Demir (E-posta: selen.demir@tedu.edu.tr)

Yrd. Doç. Dr. Tuğba Uzer-Yıldız (E-posta: tugba.uzer@tedu.edu.tr)

Çalışmaya katkıda bulunan bir gönüllü olarak katılımcı haklarınızla ilgili veya etik ilkelerle ilgi soru veya görüşlerinizi TED Üniversitesi İnsan Araştırmaları Etik Kurulu Merkezi'ne iletebilirsiniz

E-posta: <u>iaek@tedu.edu.tr</u>

TED ÜNİVERSİTESİ İNSAN ARAŞTIRMALARI ETİK KURULU

11.09.2017

Sayı:68

Konu: Etik Kurul Kararı

Sayın

Selen Demir Sosyal Bilimler Enstitüsü, Gelişim Odaklı Klinik Çocuk ve Ergen Psikolojisi Yüksek Lisans Programı Öğrencisi

TED Üniversitesi İnsan Araştırmaları Etik Kurulunun **07.09.2017** tarih ve **2017/74** sayılı kararı ekte sunulmuştur.

Prof. Dr. Melike SAYIL

TED Üniversitesi

İnsan Araştırmaları Etik Kurul Başkanı

TED ÜNİVERSİTESİ İNSAN ARAŞTIRMALARI ETİK KURULU

ETİK KURUL KARARLARI

Toplantı Tarihi: 07.09.2017

Toplantı Sayısı: 2017/68

TED Üniversitesi İnsan Araştırmaları Etik Kurulu **07.09.2017** Perşembe günü saat 11.00'de toplanarak aşağıdaki kararları almıştır.

Karar:(74) TED Üniversitesi, Sosyal Bilimler Enstitüsü, Gelişim Odaklı Klinik Çocuk ve Ergen Psikolojisi Yüksek Lisans Programı öğrencisi Selen Demir'in sahibi olduğu "Karışık Duygu İçeren Deneyimlerin Hatırlanmasında Yaş Farklılıkları" başlıklı yüksek lisans tez çalışmasına ilişkin 15.08.2017-1171 tarih ve sayılı etik kurul onay talebi görüşülmüş ve araştırma kapsamında uygulanacağı beyan edilen veri toplama yöntemlerinin araştırma etiğine uygun olduğuna OYBİRLİĞİ ile karar verilmiştir.

Prof. Dr. Melike SAYIL

Başkan

Prof. Dr. Berin GÜR

Üye

Prof. Dr. Ali CENGİZKAN Üve

Doç. Dr. Cem AKGÜNER

Üye

Yrd. Doç. Dr. Mana Ece Tuna ÖZCİVANOĞLU

Üye

Yrd. Doç. Dr. Tekin KÖSE

Üye

Yrd. Doç. Dr. Elif KARSLI

Üye

Yrd. Doç. Dr. Aylin Çakıroğlu ÇEVİK

Üye