

AUTOBIOGRAPHICAL MEMORY PROCESSES FOR REGRET-EVOKING EVENTS IN
COMPARISON WITH CONTENTMENT-EVOKING EVENTS

by

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Thesis submitted to the

Koc University

Graduate School of Social Sciences and Humanities

in partial satisfaction of the requirements for the degree of

Master of Arts

in

Psychology

Koc University

2016

ABSTRACT

The role of positive and negative emotions on autobiographical memory processes has been widely investigated. However, literature on memories of events which are later regretted is very limited. The aim of this exploratory study was to investigate autobiographical memory characteristics for regret-evoking events in comparison with contentment-evoking events which have not been studied before. Data were collected from 71 participants via interview and online survey to investigate the effects of the shared characteristics of regret and contentment events - feeling of responsibility over a life decision - on memory processes by comparing those events with other negative and positive memories, respectively. The role of the regret and contentment-evoking memories being action or inaction events, or open or closed events were addressed in terms of memory phenomenology and temporal distribution of memories. The effect of perfectionism and rumination were also examined in relation to memory characteristics of those events. Some of the general results revealed significant difference of memory age between regret-evoking and negative, and contentment-evoking and positive events, which supported the distinction between cognitively driven emotions – regret and contentment - and other emotions. Contentment memories were found to be more accessible compared to regret memories. However, there were no major effects of individual differences in perfectionism and rumination levels on the relationship between emotions in question and autobiographical remembering. Temporal distribution of action and inaction regrets did not support previous findings that suggested that memories of inaction events were older in age compared to memories of action event. A series of comparisons on the effect of regret and contentment events on memory phenomenology were also discussed.

Key Words: Regret, Contentment, Autobiographical memory phenomenology, Emotion-cognition interactions.

ÖZET

Pozitif ve negatif duyguların otobiyografik bellek süreçlerindeki rolünün bugüne dek sıkça araştırılmış olmasına rağmen, pişmanlık uyandıran olayların hatırlanmasına ilişkin araştırmalar oldukça sınırlıdır. Bu keşif araştırmasının amacı, pişmanlık uyandıran olaylara dair bellek özelliklerini, daha önce çalışılmamış olan memnuniyet uyandıran olaylara dair bellek özellikleriyle karşılaştırmalı olarak incelemektir. Araştırmanın örneklemini, çoğu 30 yaşın üzerinde olan 71 katılımcıdan oluşmaktadır. Araştırma verileri, yüz yüze mülakat ve çevrimiçi anket yöntemleriyle toplanmıştır. Pişmanlık ve memnuniyet veren olayların ortak özelliğinin – bir karar üzerinde hissedilen sorumluluk - bellek özelliklerine etkisi, bu olaylara dair anıların özelliklerinin, diğer pozitif ve negatif olaylara dair anıların özellikleriyle karşılaştırılmasıyla incelenmiştir. Pişmanlık ve memnuniyet uyandıran olayların eylem veya eylemsizlik olması ve açık veya kapanmış olaylar olmasının anı fenomenolojisi ve anıların zamansal dağılımı üzerindeki etkisi de incelenmiştir. Bu duygulara dair bellek özelliklerinde mükemmeliyetçilik ve ruminasyon düzeyindeki bireysel farklılıkların olası etkileri de incelenmiştir. Araştırmada genel olarak, pişmanlık ve diğer duygulara dair anılar; ve memnuniyet ve diğer pozitif duygulara dair anılar arasında anlamlı bir anı yaşı farkı bulunmuştur. Bu bulgu, bilişsel süreç kaynaklı duygular – pişmanlık ve memnuniyet – ve diğer duygular arasındaki ayrımı desteklemektedir. Ayrıca, memnuniyet anılarının, pişmanlık anılarına göre daha ulaşılabilir olduğu; mükemmeliyetçilik ve ruminasyon düzeyindeki bireysel farklılıkların ise, duygular ve otobiyografik hatırlama arasındaki ilişkiyi beklenen doğrultuda etkilemediği bulunmuştur. Anıların zamansal dağılımı ise, önceki araştırmalarda öne sürülen, eylemsizlik içeren anıların eylem içeren anılara göre daha eski olduğu bulgusunu desteklememiştir. Pişmanlık ve memnuniyetin otobiyografik belleğin fenomenolojisi üzerindeki etkileri karşılaştırmalı olarak incelenmiş ve tartışılmıştır.

Anahtar Kelimeler: Pişmanlık, Memnuniyet, Otobiyografik belleğin fenomenolojisi, Duygu-biliş etkileşimleri.

ACKNOWLEDGEMENTS

First and foremost, I would like to express my deepest gratitude to my advisor, Sami Gülgöz, for his support, encouragement, and patience throughout my graduate studies. He gave me independence and autonomy to direct my work, but at the same time, he provided me with the invaluable guidance whenever I was in need. Working with him has been too good to be true; as he is someone who truly enjoys the work he is doing and inspires this energy in those working with him. I consider myself privileged to have had him as my advisor in the beginning of my academic career, and I hope one day I will become as inspiring an advisor to my students as he has been to me.

I also would like to thank the rest of my committee members, Fuat Balcı and Murat Ergin, for reading previous drafts of this thesis, and providing their invaluable comments.

I am also indebted to the participants of this study, who volunteered to take this long survey and shared their special memories. I am also grateful to undergraduate student members of KURAM Lab, Zeynep Aslan, Ceylin Petek Ertekin, Nesli Güner, Lara Kalafatoğlu, Ceren Karahan, Hazal Kartalkanat, Elif Mertan, Öyku Türker, Aysegül Yücel, and İdil Bilgin, who helped me in reaching participants, and collecting and coding data. This would have been much harder and taken much longer without their help.

Last but not least, I owe a very special thanks to my fellow KURAM Lab mates, Berivan Ece Usta and Sezin Öner for being the most incredible lab mates ever. Having gone through the most unpredictable, and strange years together, we've all been there to kept one another sane. Our friendship grew stronger and more enriching as we, as a team, transformed from Koç Cognition Lab to KURAM Lab and to Kuran Lab in some occasions. Having written the last couple of paragraphs of this thesis in my new house, very far from home, but having these two people next to me, I am looking forward to see how we exist together in different parts of the world, in the new seasons of our life journey.



To the memory of my mother and my father...

CONTENTS

CHAPTER 1: INTRODUCTION	1
Autobiographical Memory	1
Emotions and Autobiographical Memories.....	3
What is regret?	6
Regret and Contentment Events as Autobiographical Memories	9
Individual Differences in the Experience and Remembering	11
of Regret and Contentment	11
Perfectionism.....	11
Perfectionism, Decision Making, Rumination, and Regret.....	13
Research Questions and Hypotheses.....	14
CHAPTER 2: METHOD	19
Participants.....	19
Materials.....	19
Procedure.....	20
CHAPTER 3: RESULTS	22
General Findings	22
Hypothesis testing	25
CHAPTER 4: DISCUSSION	35
The Effect of Individual Differences	36
Temporal Distribution and Phenomenology of Memories Depending on	37
Events Being Categorized as Action or Inaction	37
Closure	38
Limitations, and Future Research.....	38
REFERENCES.....	40
APPENDICES.....	48

TABLES

Table 1. Effects of Mode of Participating and Questionnaire Order on Various Measures.....	22
Table 2. Number of Memories by Event Types	23
Table 3. Number of Regret and Contentment Memories by Being Action or Inaction	24
Table 4. Number of Action and Inaction Regrets Reported by Three Age Categories.....	27
Table 5. Memory Characteristics of Regret and Negative Memories After Controlling for Memory Age	28
Table 6. Memory Characteristics of Contentment and Positive Memories After Controlling for Memory Age.....	30
Table 7. Memory Characteristics of Open and Closed Regrets	32

CHAPTER 1: INTRODUCTION

Autobiographical Memory

Autobiographical memory is a type of memory system that contains episodic and semantic information about one's own past (Rubin, 2005). Autobiographical episodic information involves recollection of personal episodes such as remembering the first kiss. Episodic memory requires recollecting past events with the state of *autonoetic consciousness*, which is the ability to mentally placing oneself in past, present, and future, as if making a mental time travel (Tulving, 1985). In contrast, autobiographical semantic information includes facts about self such as knowing the date when one was born. It does not require mental time travel; but only includes abstract knowledge without any contextual detail. A recent conceptualization of autobiographical memory suggests that these memories are not static or perfectly encoded, but reconstructed with each retelling (Hyman & Loftus, 1998). This conceptualization of autobiographical memories predicts differences between each retelling of the same memory. The reconstruction of autobiographical memories is thought to serve one's goals and motivations at the time of retrieval (Conway, 1996; Conway & Pleydell-Pearce, 2000).

According to Conway and Pleydell-Pearce (2000) autobiographical memory contains different kinds of information in different specificity levels. Three broad types of information in an autobiographical memory are the lifetime periods, general events, and the event-specific knowledge. *Lifetime periods* refer to autobiographical knowledge about one's thematically or temporally distinguishable life periods (e.g. the time period when one was a vegan). Features of these periods such as activities, relationships, and attitudes are grouped together in one's autobiographical knowledge due to their shared theme. Although lifetime periods have particular start and end points, they are often fuzzy and subject to overlapping. For example,

a lifetime period of high school years may well overlap with lifetime period of being overweight. *General events* are more specific compared to lifetime periods, and they refer to representation of repeated and thematically similar events. Activation of one of these memories activates representation of the others. For instance, one's birthday parties are repeated, and they share a certain thematic characteristic although each of the birthday parties is unique in essence. However, according to Conway and Pleydell-Pearce (2000), they are linked to each other in our autobiographical knowledge through their shared characteristic. *Event-specific knowledge*, on the other hand, contains most direct and specific details of particular events, which often include sensory and perceptual details (Conway, Pleydell-Pearce, 2000).

According to Conway and Pleydell-Pearce (2000) autobiographical remembering can occur in two ways in this representational system. *Generative retrieval* of specific memories requires an intentional and controlled process of search in the autobiographical knowledge base when the rememberer is in a retrieval mode. Through this process, one may search memory representation of a certain event within memories of the lifetime period or the group of general events it belongs, until she reaches event-specific details. However, sometimes a cue can activate event-specific knowledge directly and can lead to direct or *spontaneous recall* of a specific memory. According to Conway and Pleydell-Pearce (2000), activation of event-specific knowledge in response to an environmental cue can spread to general events and to lifetime periods, or vice versa. The direction of the spread of activation can vary.

Conway and Pleydell-Pearce's Self-Memory System (2000) focuses on the reciprocal relationship between the autobiographical remembering and working self which contains ever-changing goals. According to this model, autobiographical knowledge shapes the goals of the self. In other words, one cannot have and maintain a goal if it contradicts with the autobiographical knowledge. That is, for instance, the realistic goals are the ones which are

consistent with past experiences. Once created, the goal structure of the working self, in turn, determines which autobiographical knowledge to be accessed and how is to be constructed into memory. That is, current goals make individuals selectively access the knowledge, and once accessed, edit them in a way to make consistent with the goals. From the perspective of Higgins' theory (1987) which offers three types of self as the actual, ideal, and ought self, one of the current goals of the working self can be to reduce the discrepancy between these selves. A goal can lead the individual to remember the memories that facilitate the function of maintaining a coherent sense of self. Similarly, consistent findings showing enhanced accessibility of positively valenced memories compared to negative ones can be explained by emotion-regulation goals, such as achieving and maintaining a positive mood (e.g. Linton, 1975; White, 2002).

Emotions and Autobiographical Memories

Although emotional experience is a central component of autobiographical events, the effect of emotions on autobiographical remembering is complex. According to Brown and Kulik (1977) past events that contain powerful emotional experience are more special than others, resulting in more enduring and vivid memories. On the other hand, although some diary studies showed enhanced memories for emotional events compared to emotionally neutral events (e.g. Brewer, 1988), others showed no difference (e.g. Linton, 1982). Research on eyewitness memories (Christianson, 1992), flashbulb memories (Brown & Kulik, 1977), and traumatic memories (Schooler & Eich, 2000) shows emotionally arousing events may cause vivid and enduring memories even after decades. However, impairing effect of emotional arousal on eyewitness memories (Kassin, Ellsworth, & Smith, 1989), totally forgotten personal traumas (Schooler, & Eich, 2000), and false flashbulb memories (see Conway, 1995, for review) are also reported in the literature.

Research on the role of emotional valence on memory consistently reported that positive memories tend to be remembered more, both voluntarily (Meltzer, 1930) and involuntarily (Berntsen, 1996) in healthy subjects. Diary studies also show enhanced memory recall for positive over negative memories (e.g. Linton, 1975; White, 2002). In addition, participants report greater number of positive memories compared to negative ones, and they tend to remember greater proportion of those in a second memory test that took place after a delay (e.g. Meltzer, 1930). Supporting these findings, in Linton's diary study (1982) where she investigated her own autobiographical memories, she reported that only 13% of the memories were about specific negative events.

One explanation for reduced memory for negative events is that the negative affectivity diminishes faster than positive affectivity. In their earlier studies, Cason (1932) and Barlow (1955) demonstrated that the intensity of negative memories fade more quickly compared to that of positive memories. Diary studies (Thompson, et al., 1996), and involuntary memory studies (Berntsen, 1996) also replicated this finding. Two possible explanations to this phenomenon, called *fading effect bias*, have been proposed. First, drawing on the mobilize-minimize hypothesis of Taylor (1991), Walker et al. (1997) proposed that the rapid decrease in negative affect occurs since physiological, affective, cognitive, and social resources of the organism are mobilized to reduce the impact of negative events in the long-run. Second, representing negative events more abstractly is proposed as a way that individuals deal with negative events. Supporting this argument, D'Argembeau et al. (2003) found that negative events are retrieved with less contextual details, whereas positive events are associated with more peripheral (Berntsen, 2002; Talarico, Berntsen, & Rubin, 2009), and sensory details (e.g. D'Argembeau, et al. 2003), vividness, and reliving (Talarico, et al., 2004).

In line with this explanation, memory perspective literature (e.g. McIsaac & Eich, 2004; Sanitioso, 2008) suggests that individuals shift from the first person perspective to the third person perspective while remembering negative events to maintain their well-being. The first person perspective is defined as visualizing an experienced event from the original point of view, as if reliving the experience. The third person perspective refers to visualizing events through an observer's eyes and "seeing" self in the event as well as the surroundings (Nigro & Neisser, 1983). According to these theorists (e.g. McIsaac & Eich, 2004; Sanitioso, 2008) the third person perspective serves a distancing function between the present and remembered selves by reducing contextual and sensory information, whereas the first person perspective connects the remembered self to the present self by incorporating the internal information of the pictured self to the event representation. Research revealed that negative events are more likely to be remembered from the third person perspective which is thought to allow individuals to distance themselves from the event and reduce negative affectivity associated with it (e.g. Sanitioso, 2008). All in all, the rapid fading of negative emotionality suggests that, in the long-run, through the coping mechanisms described above, reduced memory for negative events are plausible.

Although negative affectivity fades faster than does positive affectivity, the feeling of regret appears to resist this *fading effect bias*. One of the explanations why the temporal pattern of the experience of regret is not parallel to that of other negative emotions is that, regret-evoking events need not be negative at the time of experience. Regret can occur later even if the event itself is initially positive. For example, one can regret not spending much time studying in college years, but the experience of college years might be positive at the time of experience. Although some regrets involve recollection of specific negative occurrences (i.e. humiliating a student in front of the class), others may involve no such

recollections and occur as a result of evaluating the consequences of initially positive events as negative.

What is regret?

Regret is defined as “a more or less painful cognitive and emotional state of feeling sorry for misfortunes, limitations, losses, transgressions, shortcomings, or mistakes” (Landman, 1993, p.36). Males and females think regret-evoking events with equal frequency (Landman, & Manis, 1992), and studies with young and old participants (Wrosch & Heckhausen, 2002), and cross-cultural samples (Gilovich, Wang, Regan, & Nishina, 2003) suggest that the experience of regret is widespread.

The most salient characteristic of regret distinguishing it from other related emotions like guilt, sadness, remorse, and disappointment is that regret is a cognitively determined emotion that requires a conscious judgment between alternative outcomes that might have been achieved through alternative life choices. The term “reasoned emotion” used by Landman (1993) to describe regret highlights this characteristic. Second distinctive characteristic of the experience of regret is that, it involves self as responsible of undesired outcomes. In other related emotions, perceiving self as the agent and feeling of responsibility are not always necessary.

Although the economic approach (e.g. Loomes & Sugden, 1982) have defined regret as “the difference in value between the assets actually received and the highest level of assets produced by other alternatives”, it is a very narrow definition as it only focuses on the outcome and ignores the path by which a particular option is chosen. Research on counterfactual thinking (Kahneman, & Miller, 1986; Kahneman, & Tversky, 1982b; Miller, Turnbull, & McFarland, 1990), on the other hand, suggests that events are evaluated by comparing it with alternative events that might, could, or should have happened. From this perspective, considering what might have been different if a certain thing has turned out

differently is the source of certain emotions such as regret, relief, satisfaction, or contentment as it allows individuals to compare what they have gotten in reality and what they might have gotten in an alternative scenario (e.g. “If I hadn’t visited my professor, I would have not known that there will be a quiz tomorrow”). This perspective suggests that people react more to events if the alternative outcome is easy to imagine. For instance, individuals give stronger reaction to the death of a person in an airplane crash after he switches the flights at the last minute, compared to that of a person who died in the same crash but did not switch planes (Miller et al., 1990). The difference in the strength of individuals’ reaction to these two events resulting in the same outcome stems from the fact that imagining the alternative outcome, not switching the flights and surviving, in the first scenario is easier. This example clearly illustrates that not only the outcome but also the path by which the outcome is reached is significant in reactions to decision outcomes. In terms of regret, specifically, one may expect a person who misses a passing grade with one point to experience regret more intensely for leaving the exam earlier compared to another person who missed the passing grade with ten points, since imagining earning an additional one point within a short time is easier in this scenario.

Arriving at the same outcome by action or inaction is another distinction predicting the experience of regret. The exact same outcome, arrived by action or inaction, is evaluated differently in terms of the regret it elicits, in the famous scenario used by Kahneman and Tversky (1982a): “Mr. Paul owns shares in company A. During the past year he considered switching to stock in company B, but he decided against it. He now finds out that he would have been better off by \$1,200 if he had switched to the stock of company B. Mr. George owns shares in company B. During the past year he switched to stock in company A. He now finds that he would have been better off by \$1,200 if he had kept his stock in company B. Who feels greater regret?” Although the amount of loss of Mr. Paul and Mr. George is equal,

92% of participants responded that Mr. George would feel more regret. Similarly, individuals experience more intense regret when they changed a true answer to an incorrect one, compared to when they failed to change an incorrect answer to the correct one (Kruger, Wirtz, & Miller, 2005).

Although most of the laboratory studies like Kahneman and Tversky (1982a) support that individuals expect greater regret when an undesirable outcome occurs as a result of action taken rather than an action foregone (Gleicher et al., 1990; Kahneman, & Tversky, 1982a; Landman, 1987), when people are asked about their biggest regrets in life, they talk about inactions, rather than actions (Gilovich, & Medvec, 1994, 1995). Research on these conflicting observations revealed a temporal pattern of the experience of regret. That is, regrets of actions occur in the short-run whereas regrets of inactions occur in the long-run. One explanation of this is that, the alternatives of regrettable actions (i.e. “what might have happened if I did not do this”) are mostly readily imaginable, and limited compared to the alternative of regrettable inactions, which requires some time to imagine. More specifically, doing something changes the circumstances but failing to do something results in maintaining the current circumstances. Thus, one who regrets doing something can imagine what might have happened if the regrettable action is not taken more easily because the alternative is the circumstances one has experienced before taking the regrettable action. However, imagining what might have happened if the regrettable inaction is reversed is harder for one who regrets failing to do something, as the alternative circumstances that would follow an action have not been experienced. Thus, people begin to realize negative consequences of their regrettable inactions only after a certain time period. As time passes, with the failure to take an action, people can attribute the accumulating undesirable experiences to their failure to do something and inaction causes increasing regret over time. For example, not doing one’s best in school can be a consequence of not finding a desirable job, not providing children with means, not

having a summer house, and not enjoying the retirement. Thus, as an individual gets older, if these bad experiences accumulate, the feeling of regret would increase (Gilovich & Medvec, 1994; 1995).

Regret and Contentment Events as Autobiographical Memories

Although the reasons (Gilovich, & Medvec, 1995) and temporal development (Gilovich, & Medvec, 1994) of regret have been investigated, how we remember the regret-evoking events in our lives is not much investigated. In one study, fading effect bias in regret memories was investigated for action versus inaction and open versus closed regretful events by implementing a directed forgetting or directed remembering of regret related words over a two week period (Beike & Crone, 2008). The results revealed that action regrets resisted fading more, regardless of whether the event was construed as closed or open, compared to inaction regrets. However, as this study focused on a short period of time, and the sample comprised of college students, these findings may lack generalizability to lifetime patterns of fading of regret. Given the limited literature on the subject, the aim of the current study was threefold. First, memories of regret were investigated in comparison with contentment memories in terms of phenomenological characteristics. Second, memories of regret were compared to memories of other negative emotions and memories of contentment were compared to memories of other positive emotions to examine whether regret and contentment memories differed from others as a result of their specific characteristics as emotions. Third, the effects of individual differences in perfectionism and rumination on the experience and remembering of regret and contentment events were examined.

There appears to be no research investigating the memory characteristics for contentment events. In this study, contentment is conceptualized as the feeling of satisfaction over things that one has chosen to do or not to do. To maintain comparability between contentment memories and regret memories, the contentment events are restricted only to

those that involve self as the agent, or as the responsible party for that choice. For example, participants were not allowed to report events such as “I am glad that my son attended college”. Rather they were required to report events that they caused, such as “I am glad I registered my son to that college”. In terms of the characteristics of agency, self-relevance, and cognitive involvement, contentment and regret memories are considered to be equivalent except for their valences. Thus, comparing contentment memories with regret memories allowed investigating valence effects on memory processes of the events resulting in cognitively driven emotions.

In this study, autobiographical regrets were categorized as “action” or “inaction”, “open” or “closed”, and “specific” or “general”. Action regrets were conceptualized as regretting a thing that you have done, whereas inaction regrets are regretting something you failed to do. For example, attending a boarding school can be a source of action regret whereas not doing homework can be a source of inaction regret. Open regrets were conceptualized in this study as events that still strain one’s mind. In contrast, regardless of whether the experience of regret endures, if an individual does not think about the regret-evoking event much, and accepts the consequences, then this was considered a closed regret. Specific regret memories are single events that took place at a certain time and place in contrast to general regrets, which are either the summaries of multiple events (e.g. not waking up early in the weekends) or general periods in life (e.g. having a corporate career).

The same distinctions are applicable to contentment memories as well. Action contentment were conceptualized as feeling satisfied with a thing that one has done; whereas inaction contentment is feeling satisfied that one has not taken a particular action. For example, attending a college can be a source of action contentment whereas not going to a party the night before an exam can be a source of inaction contentment. Open contentment was conceptualized in this study as an event that still occupies one’s mind. In contrast,

regardless of whether the experience of contentment endures, if an individual does not think about the contentment-evoking event much, than this is a closed contentment. Specific contentment memories are single events that occurred at a certain time and place in contrast to general contentments which are either the summaries of multiple events (e.g. going to gym regularly) or general periods in life (e.g. spending summer with one's family).

Individual Differences in the Experience and Remembering of Regret and Contentment

Perfectionism

A general definition of perfectionism as a personality trait is setting high personal standards, and being overly-critical towards self in the face of perceived failure (Flett & Hewitt, 2002). Previous research had treated perfectionism as a unidimensional construct correlated with maladaptive psychological constructs such as neuroticism (Flett, Hewitt, & Dyck, 1989), depression (Hewitt & Flett, 1991, 1993), suicidal intention and ideation (Hamilton & Schweitzer, 2000; Hewitt et al., 1992), procrastination (Flett, Blankstein, Hewitt, & Koledin, 1992), anxiety (Flett, Hewitt, Blankstein, & O'Brien, 1991), and problems in interpersonal relationships (Hill, Zrull, & Turlington, 1997).

More recent research has shown that treating perfectionism as a unidimensional construct is an oversimplification. Instead, several researchers proposed two- or more-factorial models of perfectionism (Slade & Owens, 1998; Bieling, Israeli, & Antony, 2004; Frost et al., 1993; Dunkley, Zuroff, & Blankstein, 2003; Hewitt, Flett, 1991). For example, the dual process model proposed by Slade and Owens (1998) made a distinction between positive and negative perfectionism. According to Slade and Owens (1998) positive and negative perfectionists may exhibit similar behaviors, however the underlying motivational mechanisms and cognitive processes of their behaviors are essentially different. They suggest that, the primary motivation of positive perfectionists is to achieve success whereas

negative perfectionists are motivated to avoid failure. Therefore, positive perfectionism is conceptualized as optimistic thoughts towards future achievements and feeling of emotional security whereas negative perfectionism is associated with fear of future which they believe will bring failure at any time. According to these researchers, this distinction between positive and negative perfectionism reflects the distinction between positive and negative reinforcements which are introduced by Skinner (1968). That is, positive perfectionists are motivated by their histories with positive reinforcements, where they were reinforced for their achievements, whereas the behaviors of negative perfectionists are directed by negative reinforcement, where they avoid something unpleasant by their achievements. As a result, positive perfectionists are motivated to reach success and negative perfectionists try to eliminate failure. Whereas negative perfectionism was found to correlate with cognitive dysfunctions, regret, and depression; positive perfectionism was correlated with life satisfaction, but not with maladaptive characteristics with which negative perfectionism is correlated (Slade and Owens, 1998). Regarding the coping strategies with stressful life events, negative perfectionists were found to engage in rumination and suppression, and positive perfectionists were observed using active problem solving strategies (Burns & Fedawa, 2005).

Frost and her colleagues (1993) introduced the concept of positive striving perfectionism- which is similar to what Slade and Owens (1998) defined as positive perfectionism- corresponding to “positive” aspects of perfectionism such as having high personal standards. This dimension of perfectionism is associated with positive affect, persistence, and academic achievement (e.g., Frost et al., 1993, Stoeber & Kersting, 2007, Stumpf & Parker, 2000). Self-critical perfectionism (Dunkley, Zuroff, & Blankstein, 2003) on the other hand, captures “negative” aspects of perfectionism such as being overly-critical towards self, feeling discrepancy between ideals and achieved results, and belief that only being perfect brings others’ acceptance. This dimension has positive correlations with

negative affect, and low levels of self-esteem, and self-efficacy (e.g., Dunkley et al., 2003, Frost et al., 1993, Stumpf & Parker, 2000).

Another distinction in perfectionism was introduced by Hewitt and Flett (1991). They developed a multidimensional perfectionism scale (MPS; Hewitt & Flett, 1991) to capture a three dimensional model, which includes self-oriented, other-oriented, and socially prescribed perfectionism. Self-oriented perfectionism is defined as setting exacting goals and fear of being imperfect, whereas other-oriented perfectionism is defined as expecting others to meet high standards. Believing that others expect them to be perfect is defined as socially-prescribed perfectionism. Self-oriented and socially prescribed perfectionisms are more relevant to the current study as they involve perfectionist strivings for the self.

Perfectionism, Decision Making, Rumination, and Regret

Research suggests a positive correlation between perfectionism and indecisiveness (Gayton, Clavin, Clavin, & Broida, 1994). For example, Page, Bruch, and Haase (2008) found that both adaptive and maladaptive perfectionism are associated with career indecisiveness. One possible reason of perfectionists' indecisiveness is that they are often maximizers, rather than satisficers in decision-making situations (e.g. Schwartz, et al. 2002). Maximizing is evaluating each possible option and trying to select the best option, whereas satisficing is trying to find an option which merely exceeds a certain criterion (Simon, 1955). In real life situations, maximizing is almost impossible due to lack of access to all alternatives and humans' limited information processing capacity in most decision making situations. Since maximizers strive to find the best available option, they tend to experience choice difficulty and indecisiveness compared to satisficers who feel satisfied with the "good enough" alternatives (e.g. Frost & Shows, 1993). Studies investigating these two decision making strategies have found negative relationship with maximizing strategy and post-selection satisfaction, and that maximizing behavior predicts the experience of regret (e.g.

Schwartz, et al. 2002). Given that perfectionism predicts being a maximizer, it can be considered as a personality factor that influences pre- and post-selection processes and emotional reactions of individuals in the face of choice.

In this study, perfectionists were predicted to access their regret memories more easily and also to report more detailed or more emotionally intense autobiographical memories of regret. Beside the prediction that perfectionists experience the feeling of regret more frequently due to their maximizing tendencies and high expectations for themselves, they were also expected to think about their regrets more frequently compared to non-perfectionists. For example, in one study, negative perfectionism has shown a positive correlation with rumination (Frost, Marten, Lahart, & Rosenblate, 1990). Rumination is defined as compulsive focus on the causes, meanings and consequences of one's depressive mood (Nolen-Hoeksema, 1991).

Since, by definition, rumination is a form of memory rehearsal, individuals who are engaging in ruminative thinking were expected to involve in memory rehearsal of regretful events more frequently compared to those who do not engage in rumination. Thus, in addition to a direct effect of rumination on autobiographical memories, a possible association between perfectionism and enhanced memory for regret events are expected to be mediated by ruminative thoughts on consequences of bad decisions.

Research Questions and Hypotheses

Considering the possible relationships between the individual differences discussed above, and the patterns of experiencing and remembering regret- and contentment-evoking events, the research questions in this study were as follows:

- 1) Whose regret and contentment memories are more accessible? What individual characteristics can account for accessibility of regret and contentment memories?
- 2) How are regret and contentment events distributed temporally?

- 3) Is there a difference between accessibility of regret and contentment memories?
- 4) Are there phenomenological differences between regret and negative but not regret-evoking memories?
- 5) Are there phenomenological differences between contentment and positive but not contentment-evoking memories?
- 6) Are there age differences in the type of regret and contentment memories?
- 7) Are there phenomenological differences between action and inaction memories?
- 8) Are there phenomenological differences between open and closed memories?

On the basis of the literature on the processes of experiencing and remembering regret-evoking events, the hypotheses of this study were as follows:

1. *Individuals who score high on perfectionism will report more regret memories and less contentment memories compared to those who score low.*

As discussed above, perfectionism as a personality trait is defined as setting high personal standards, being over-critical towards self, and over-concerned about others' evaluations of the self (Stoeber et al., 2010). Regret is experienced when individuals evaluate an undesirable outcome as a result of one's own actions or inactions. In that sense, it was predicted that not meeting the personal standards and not achieving the goals would produce regret through self-criticism in individuals high in perfectionism. Similarly, since achieving high goals and standards is not always possible, high perfectionists were predicted to retrieve less contentment memories due to frequent feeling of dissatisfaction over positive things happened due to one's actions or inactions.

2. *Individuals who score high on rumination will report more regret memories compared to those who score low.*

Rumination is defined as compulsive attention on negative feelings, thoughts, and experiences from one's past. Previous research demonstrated that highly ruminative

individuals focus especially on the negative aspects of their memories (Nolen-Hoeksema, 2000; Schoofs, Hermans, & Raes, 2012). On the other hand, rumination is related to overgeneral memories (Nolen-Hoeksema, & Morrow, 1991) since effective memory search is interfered by negative affectivity (Kühner, Huffziger & Nolen-Hoeksema, 2007). Thus, in this research, individuals who were high on rumination were predicted to recall a greater number of regret memories due to enhanced rehearsal of negative events, compared to those who are low, and these memories are predicted to be recalled with less contextual details.

3. Older participants' inaction regrets and contentments will be remote, and action regrets and contentments will be recent.

4. Younger participants will report less inaction regrets and contentments compared to older adults.

Regarding Gilovich and Medvec's (1995) account on the temporal distribution of regret, inaction causes greater regret in the long run whereas the feeling of regret is more intense for actions in the short run, since consequences of inactions take longer time to be realized. I expect the same prediction holds for action and inaction contentments as well. For this reason, regarding hypothesis 4, older participants were expected to report older memories if they are about inactions. Younger adults, on the other hand were expected to report inaction regrets and contentment less frequently compared to action regrets and contentments since they have not experienced the time-dependent consequences of their inactions yet.

5. Regret memories will be associated with greater intensity in negative emotionality compared to other negative memories of the same age. Regret memories will also be associated with more frequent internal and external rehearsal, more sensory and contextual details in general.

6. Contentment memories will be associated with greater intensity in positive emotionality compared to other positive memories of the same age. Contentment

memories will also be associated with more frequent internal and external rehearsal, more sensory and contextual details in general.

Due to the distinction between regret-evoking events and other negative events in terms of the temporal pattern of experience of the feeling, regret memories were predicted to resist *fading effect bias* and lead to greater emotional experience in retrieval. Since feeling of regret and contentment requires evaluation of the actual and alternative outcomes of a decision, these evaluations resemble internal rehearsals. Both frequent rehearsal and resistance to fading effect bias would be associated with more contextual and sensory details in memory representation.

7. *Regret memories will be less accessible compared to contentment memories.*

The rationale behind this hypothesis was quite straightforward: Although regret-evoking events were expected to have stronger memory representation compared to other negative events' due to their resistance to fading, contentment memories were expected to be more accessible because of its positive valence in addition to other characteristics that it share with regret (i.e. self-involvement, and being counterfactual emotion).

8. *Both the memory of the event itself and the alternative scenario for open regrets and contentments will be more vivid, emotionally intense, detailed, frequently rehearsed, and will be remembered from the field perspective.*

9. *Both the memory of the event itself and the alternative scenario of closed regrets and contentments will be remembered from the observer perspective.*

Zeigarnik effect (1967) is defined as enhanced memory for events that remain unfinished. In their study, Savitsky, Medvec, and Gilovic (1997) demonstrated that inaction regrets, which are perceived as “unfinished business” more frequently, are ruminated more. Consistent with the description of open regret, a Zeigarnik effect was expected for open memories which are still unresolved in mind. As a consequence of internal or external

rehearsal, open memories were predicted to exhibit higher level of contextual and sensory details and more frequent use of field perspective in contrast to closed memories.

As it was discussed above, the observer perspective is associated with self-distancing. In other words, looking at the self from an observer's eye reduces emotional experience at the time of retrieval, and results in less contextual cues, reducing the experience of reliving. Although my study design did not allow me to inspect the causal relationship between shifting to the observer perspective and closure, I expected a correlation.

10. Memories of action regrets and contentments will be more specific, detailed, and emotionally arousing compared to memories of inaction regrets and contentments.

Regarding the difference between availability of the consequences of actions and inactions, action-related events were thought to have enhanced memory since they are more salient. That is, if we assume that the consequences of actions are experienced earlier compared to that of inactions in general, they were expected to be rehearsed shortly after the event.

CHAPTER 2: METHOD

Participants

A total of 54 female and 17 male participants between ages 28 and 77 ($M = 40.56$) participated in the study either in an interview ($n = 42$, $M_{\text{age}} = 47.31$ $SD_{\text{age}} = 11.46$) or via the online survey ($n = 29$, $M_{\text{age}} = 37.17$ $SD_{\text{age}} = 8.47$).

Materials

Memory Characteristics Questionnaire. This scale is a self-report measure of subjective evaluations of memory characteristics (Gülgöz & Rubin, 2001). It includes questions about the age of the event, vividness, and emotional component of the memory, the level of confidence about memory accuracy, the level of sensory and contextual details in memory, the perspective individuals take in picturing the event, the frequency of internal and external rehearsal of the event, and whether the event is specific, general, or repeated. For the purposes of this study, several questions were added to the scale. These questions included the amount of delay between the event and the first experience of emotion, whether the event is closed or open, the breadth and type of the impact of the event on participants' lives, and the psychological distance to the event. A section was added to the questionnaire to investigate counterfactual thinking about regret and contentment events. The last four questions were about the alternative scenario for the regret and contentment events. These questions were about the frequency of thinking about alternative scenarios, and the phenomenology of the imagination of these scenarios (The regret form of this revised version of the questionnaire can be found in Appendix B).

Multidimensional Perfectionism Scale: Developed by Hewitt and Flett (1991) Multidimensional Perfectionism Scale is a widely used measure aiming to capture three types of perfectionist motivations: *Self-oriented perfectionism*, capturing setting high expectations and standards for oneself, *other-oriented perfectionism*, capturing one's high expectancies and

standards for others, and pressuring others to have perfectionist motivations, and *socially prescribed perfectionism*, capturing having perfectionist motivations as a result of thinking that being accepted by others depends on meeting with high expectations and standards . Multidimensional Perfectionism Scale consists of 45 self-report items, allowing respondents to make their evaluations on the items using a 7-point-Likert type response scale (1= “*Strongly disagree*”, 7= “*Strongly agree*”). The possible minimum and maximum scores of the scale is 45, and 315, respectively, with higher scores indicating greater level of perfectionism. The Cronbach alpha of the Turkish version of Multidimensional Perfectionism Scale (Appendix C) is found to be .83 (Mısırlı-Taşdemir, 2004).

Ruminative Responses Scale: Developed by Nolen-Hoeksema and Morrow (1991), Ruminative Responses Scale is a 4-point Likert type (1= “*Almost never*”; 4= “*Almost always*”) self-report measure containing 22 statements about ruminative thoughts. The possible minimum and maximum score of the scale is 22 and 88, respectively, higher scores indicating greater level of rumination. The Cronbach alpha of the Turkish version (Appendix D) of the scale is found as .90 (Erdur-Baker, 2009).

Procedure

Following their consent, participants were asked to list all of their life regrets. Once they list all, they were asked to choose one, and describe it in detail. Then they were asked to answer memory characteristics questionnaire for this event, and write the alternative scenario, and answer some questions about it. In other words, for action regrets, they wrote (or told, in interviews) what would have happened if they did not take the action at that time; for inaction regrets, they wrote what would have happened if they took the action at that time. Some questions about the alternative scenario followed. The same procedure was applied for contentment memories. They first listed all the contentment events, picked one, described it

in detail, and answered memory characteristics questionnaire, and wrote about what might have happened if the contentment event did not occur. Following these, they reported one negative but not regret evoking, and one positive but not contentment- evoking memory, and answered the memory characteristics questionnaire for these memories. The regret and contentment memories, and negative and positive memories were asked randomly. The order of the memory questionnaires and individual differences scales were also random. Some of the participants were presented with the rumination and perfectionism scales before, and others, after the memory questionnaires. Individual differences scales were also presented in random order.

CHAPTER 3: RESULTS

General Findings

Among 71 subjects, 53 subjects completed all parts of the survey whereas 18 gave partial data. As the individual differences scales were presented before ($n = 28$) or after ($n = 25$) the memory questionnaire, those who did not complete the whole survey did not answer individual differences scales if they were presented after the memory questionnaire. Table 1 shows the effect of the mode of participating (i.e. interview or online survey) and completing the individual differences scales before or after the memory questionnaire on the number of regret and contentment memories individuals reported, the overall emotional intensity when reporting the memories, and scores on the individual difference scales.

Table 1. Effects of Mode of Participating and Questionnaire Order on Various Measures

	Mode of participating				Order			
	<i>n</i>	<i>F</i>	<i>MSE</i>	<i>p</i>	<i>n</i>	<i>F</i>	<i>MSE</i>	<i>p</i>
Number of regrets	61	3.636	26.98	.061	43	0.695	6.169	.505
Number of contentment memories	56	3.569	25.081	.064	40	0.411	3.780	.666
Emotional intensity when reporting regret memories	58	1.558	80.158	.217	40	0.324	201.758	.725
Emotional intensity when reporting contentment memories	54	2.283	980.863	.137	39	0.302	160.121	.741
Multilevel regret memories	43	1.448	5533.10	.236	37	0.251	1132.72	.779
Multilevel contentment memories	45	0.262	92.891	.611	38	2.31	759.309	.113

Mode of participating (i.e. interview, online) had marginally significant effect on the number of regret memories remembered ($F(1, 59) = 3.64, p = .61$), where those who took the

interview reported 4.58, and those who took the online survey reported 3.14 regret memories on average.

Mode of participating also had marginally significant effect on the number of contentment memories remembered ($F(1, 54) = 3.60, p = .64$), where those who took the interview reported 5.35, and those who took the online survey reported 3.90 contentment memories, on average.

Given these marginal effects, and 0-year age difference between the interview and the online group, hypotheses testing were conducted separately for those who participated in the interview, and those who took the online survey.

In terms of the memory age (i.e. the time, in years, between the event onset and respondent's reporting date in data collection), memory type (i.e. regret, contentment, negative, positive) was a significant factor. Regret memories ($M = 17.33, SD = 12.87$) and contentment memories ($M = 17.13, SD = 15.29$) were older, compared to negative ($M = 10.35, SD = 11.70$) and positive memories ($M = 8.88, SD = 11.88$).

Participants themselves evaluated their regret, contentment, negative, and positive memories as being general, specific, or repeated events (See Table 2). Regret and contentment memories were also evaluated as being action and inaction memories (See Table 3).

Table 2. Number of Memories by Event Types

	Specific	General	Repeated	Total
Regret	21	31	6	58
Contentment	17	34	5	56
Negative	33	13	7	53

Positive	38	9	6	53
Total	109	87	24	220

Table 3. Number of Regret and Contentment Memories by Being Action or Inaction

	Action	Inaction	Total
Regret	26	31	57
Contentment	51	3	54
Total	77	34	111

Hypothesis testing

1. Individuals who score high on perfectionism will report more regret memories and less contentment memories compared to those who score low.

The Cronbach alpha of Multidimensional Perfectionism Scale (MPS), which was completed by 58 of participants, was found as 0.76. Mean MPS score was 191.95 ($SD = 27.39$) out of the maximum possible score of 315. Although MPS was proposed as a three dimensional scale which covers self-oriented, other-oriented, and socially prescribed perfectionism dimensions, factor analysis with this sample did not achieve a meaningful factor structure; thus only the total score of the scale was used in the following analyses.

To test the first hypothesis, two separate linear regression analyses per group (e.g. interview, online) were conducted for regret and contentment memories. In these analyses, the total numbers of regret or contentment memories that are remembered by participants were used as criterion variables, and the total MPS scores were used as the predictor variable. Regression analyses suggested that total MPS scores did not predict either the number of regret memories ($\beta = .084, t(22) = .396, p = .70$) nor the number of contentment memories ($\beta = -.315, t(21) = -.519, p = .14$), for those who were interviewed. Similar results were found for online subjects for their regret, ($\beta = -.156, t(13) = -.156, p = .58$), and contentment, ($\beta = -.018, t(10) = -.421, p = .68$), memories. Thus, hypothesis 1 was not supported.

2. Individuals who score high on Ruminative Responses Scale will report more regret memories compared to those who score low.

The Cronbach's alpha of the Ruminative Responses Scale, which was completed by 45 of the participants, was found as .89. The mean score of the participants was 46.27 ($SD = 18.67$) out of 88.

The same analyses were conducted as those of Hypothesis 1; but this time with total rumination score as the predictor variable. Regression analysis suggested that total rumination scores did not predict the number of regret memories participants reported ($\beta = -.002, t(24) = .120, p = .905$) in the interview, or online group ($\beta = .118, t(14) = .977, p = .346$).

3. *Older participants' inaction regrets and contentments will be remote, and action regrets and contentments will be recent.*

To test this hypothesis, only those participants whose age were 66.6th percentile or above were selected. 66.6th percentile corresponded to 51 in the interview group, 36 in the online group.

Since all the contentment memories of participants in the selected age ranges were actions, analyses were conducted only for their regret memories. One-way ANOVA results showed that there was not a significant difference between ages of action or inaction regret memories ($F(1, 14) = 0.155, p = .700$) in the interview group or in the online group ($F(1, 4) = 0.845, p = .410$). Thus, Hypothesis 3 was not supported.

4. *Younger participants will report less inaction regrets and contentments compared to older adults.*

To test this hypothesis, a Chi-squared analysis was conducted with three age groups (i.e. young, middle-aged, and old participants; cut-off points being 33.3rd and 66.7th percentiles), by two regret memory groups (i.e. action and inaction). Table 4 shows the number of regret memories, which were identifiable as actions and inactions that were reported by participants from the three age groups. The effect of participants' age on the type of regret memories did not reveal statistical significance for the interview group ($\chi^2(2, N = 41) = 3.59, p = .17$). A separate analysis for the online group was not conducted as the at least 5 cases per cell requirement of the chi-square analysis was not met. Similarly,

contentment memories were not tested against age as the total number of inaction contentments for all ages was very low (2 out of 40 in the interview, 1 out of 14 in the online group).

Table 4. Number of Action and Inaction Regrets Reported by Three Age Categories

	Young	Middle	Old	Total
Interview				
Action regrets	4	9	6	19
Inaction regrets	10	5	7	22
Total	14	14	13	41
Online				
Action regrets	2	2	3	7
Inaction regrets	2	4	3	9
Total	4	6	6	16

5. *Regret memories will be associated with greater intensity in negative emotionality compared to other negative memories of the same age. Regret memories will also be associated with more frequent internal and external rehearsal, more sensory and contextual details in general.*

To control for the age of the memories, a converted dataset was created where each of the two memory types (i.e. regrets, and negatives, for this particular analysis) was treated as independent of each other. That way, the data were composed of between-subject memories with 84, and 26 cases respectively for interview and control groups, and multivariate

ANOVAs were conducted. However, the memory types did not differ in terms of the variables measuring rehearsal, emotional intensity, and the level of detail for neither the interview group $F(7, 75) = 0.502, p = .831$, or the online group $F(7, 17) = 0.720, p = .657$, (See Table 5 for descriptive statistics).

Table 5. Memory Characteristics of Regret and Negative Memories After Controlling for Memory Age

Memory characteristics		Interview			Online		
		<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Remembering*	Regret	3.9286	1.45490	42	4.4667	0.83381	15
	Negative	3.7857	1.73255	42	4.6364	0.80904	11
	Total	3.8571	1.59172	84	4.5385	0.81146	26
Intensity at retrieval*	Regret	2.5714	1.39935	42	2.5333	1.30201	15
	Negative	2.8571	1.29862	42	2.6364	1.74773	11
	Total	2.7143	1.34944	84	2.5769	0.81146	26
Perspective**	Regret	2.5000	1.56564	42	2.5333	1.30201	15
	Negative	2.5476	1.58040	42	2.4545	1.36848	11
	Total	2.5238	1.56372	84	2.5000	1.30384	26
Reliving*	Regret	3.6190	1.26785	42	3.9333	1.22280	15
	Negative	3.6190	1.51339	42	4.1818	0.75076	11
	Total	3.6190	1.38759	84	4.0385	1.03849	26
Thinking*	Regret	2.7619	0.98301	42	2.9333	0.88372	15
	Negative	2.5714	1.03930	42	2.8182	1.16775	11

	Total	2.6667	1.00999	84	2.8846	0.99305	26
Involuntary thinking*	Regret	1.2143	1.52277	42	1.4667	1.92230	15
	Negative	1.0952	1.62014	42	1.4545	1.69491	11
	Total	1.1548	1.56385	84	1.4615	1.79401	26
Talking*	Regret	2.5952	0.98920	42	2.400	1.12122	15
	Negative	2.7381	1.03734	42	2.9091	1.22103	11
	Total	2.6667	1.00999	84	2.6154	1.16883	26

Note. * Increasing values represent greater level of experience.

** Increasing values represent increasing experience of the third person perspective.

6. *Contentment memories will be associated with greater intensity in positive emotionality compared to other positive memories of the same age. Contentment memories will also be associated with more frequent internal and external rehearsal, more sensory and contextual details in general.*

Similar to that of hypothesis 5, converted datasets with 84, and 26 cases respectively for interview and control groups were used.

Multivariate ANOVA showed that memory age was a significant covariate of the relationship between memory type (i.e. contentment and positive) and phenomenological characteristics ($F(7, 75) = 2.193, p = .044$). After controlling for memory age the effect of memory type on memory phenomenology disappeared ($F(7, 75) = 1.114, p = .363$) in the interview group.

In the online group, memory age was not a significant covariate ($F(7, 15) = 1.009, p = .463$), thus it is removed from the model. The multivariate ANOVA with memory type as the only factor showed that memory type was marginally significant in its effect on the amount of thinking ($F(1, 22) = 4.241, p = .051$). Specifically, participants were thinking their

contentment memories more frequently ($M = 3.615$, $SD = .322$) compared to the positive memories ($M = 2.636$, $SD = .350$).

Means and standard deviations of memory characteristics by memory type are given in Table 6.

Table 6. Memory Characteristics of Contentment and Positive Memories After Controlling for Memory Age

Memory characteristics	Interview			Online		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Remembering*						
Contentment	4.2619	1.30775	42	3.8182	1.53741	11
Positive	4.3095	1.30777	84	3.9167	1.47196	24
Total						
Intensity at retrieval*						
Contentment	3.5714	0.70340	42	3.5455	0.52223	11
Positive	3.6786	0.62403	84	3.5833	0.58359	24
Total						
Perspective**						
Contentment	1.5476	0.96783	42	2.2727	1.19087	11
Positive	1.6071	1.04152	84	2.2083	1.21509	24
Total						
Reliving*						
Contentment	4.1429	1.07230	42	3.9091	1.04447	11
Positive	4.2143	0.99482	84	4.0000	1.10335	24
Total						
Thinking*						
Contentment	2.9048	1.35807	42	2.6364	0.92442	11

Positive	2.9524	1.31630	84	3.1667	1.23945	24
Involuntary thinking*						
Contentment	1.2381	1.73640	42	1.3636	1.80404	11
Positive	1.5357	1.81988	84	1.9167	2.01983	24
Total						
Talking*						
Contentment	2.7381	1.12747	42	2.8182	1.07872	11
Positive	2.8571	1.13161	84	3.1667	1.27404	24
Total						

Note. * Increasing values represent greater level of experience.

** Increasing values represent increasing experience of the third person perspective.

7. *Regret memories will be less accessible compared to contentment memories.*

A repeated measures ANOVA analysis was conducted with the number of regrets and contentments reported by each individual, and results suggested that individuals reported significantly more number of contentments ($M = 3.90$, $SD = 2.38$) compared to regrets ($M = 2.97$, $SD = 1.33$), $F(1, 38) = 5.94$, $p = .020$) in the interview group. However, the number of contentment memories reported ($M = 5.18$, $SD = 3.31$) did not differ significantly from that of regret ($M = 5.64$, $SD = 5.05$) memories for the online group.

8. *Both the memory of the event itself and the alternative scenario for open regrets and contentments will be more vivid, emotionally intense, detailed, frequently rehearsed, and will be remembered from the field perspective.*

Closure was assessed with a 5-point scale where two options describing open, other two describing closed memories, and the last one was an open ended “other” option. As the number of memories rated as “other” was very limited, content coding was omitted. Also, two options of open and closed memories were collapsed into one for each although they differed in terms of the amount of elaboration individuals made on the memories. As a result,

a binary variable was created representing open and closed memories. This binary variable was used in the following analyses.

Multivariate ANOVA suggested that, for regret memories, being open or closed did not have an effect on the memory characteristics in question in the interview, ($F(8,8) = 1.503$, $p = .289$), or in the online group ($F(3,3) < 1$). The descriptive statistics for the interview group is provided in Table 7.

Due to the low number of contentment memories by groups, multivariate analysis was not conducted for contentment memories.

Table 7. Memory Characteristics of Open and Closed Regrets for the Interview Group

Memory Characteristics	<i>M</i>	<i>SD</i>	<i>N</i>
Remembering			
Closed	4.6000	0.89443	5
Open	4.6667	0.65134	12
Total	4.6471	0.70189	17
Intensity at retrieval			
Closed	1.6000	1.51658	5
Open	3.1667	0.83485	12
Total	2.7059	1.26317	17
Reliving			
Closed	3.4000	1.67332	5
Open	4.2500	1.05529	12
Total	4.0000	1.27475	17

Thinking

Closed	2.6000	0.89443	5
Open	3.1667	1.33712	12
Total	3.0000	1.22474	17

Involuntary thinking

Closed	2.2000	0.83666	5
Open	2.8333	1.19342	12
Total	2.6471	1.11474	17

Talking

Closed	3.0000	1.22474	5
Open	2.5000	0.67420	12
Total	2.6471	0.86177	17

Thinking*

Closed	2.4000	1.67332	5
Open	2.4167	1.44338	12
Total	2.4118	1.46026	17

Thinking**

Closed	2.6000	1.51658	5
Open	2.5000	1.38170	12
Total	2.5294	1.37467	17

Note. * Alternative Scenario

** Frequency of thinking about alternative scenarios were assessed with two questions: “How often do you think about this alternative scenario?” and “How often do you think what

would be different in your life today if this alternative scenario was experienced instead of the original event?" (Variables Thinking*, and Thinking**, respectively).

9. *Both the memory of the event itself and the alternative scenario of closed regrets and contentments will be remembered from the observer perspective.*

Multivariate analyses for regret and contentment memories were conducted separately where perspective of memory itself and its alternative scenario were dependent variables and *closure* was the independent variable.

For regret memories and their alternative scenarios, closure did not affect the perspective individuals take when remembering in the interview group ($F(2, 37) = .922, p = .407$), or in the online group ($F(2, 8) = 1.605, p = .259$).

Due to the low number of contentment memories by groups, multivariate analysis was not conducted for the contentment memories.

10. *Memories of action regrets and contentments will be more specific, detailed, and emotionally arousing compared to memories of inaction regrets and contentments.*

Being categorized as action or inaction was not a significant predictor of event type (i.e. general, specific, and repeated), emotional intensity at retrieval, the level of detail in remembering, valence of the event at encoding and retrieval, feeling of reliving, and the perspective individuals took when remembering, in a multivariate test for regret memories in the interview group ($F(7, 30) = 1.254, p = .306$), or in the online group ($F(7, 30) = 1.254, p = .306$).

Due to low number of inaction contentment memories in the interview (2 out of 40) and online group (1 out of 14), the analysis was skipped for contentment memories.

CHAPTER 4: DISCUSSION

The aim of this research was three-fold: First, to examine autobiographical memories for events that individuals regret having experienced, in comparison with those of events that individuals are content. Second, to compare and contrast regret memories and contentment memories with other negative but not regret-evoking events, and positive but not contentment-evoking events, respectively. The third aim was to address any effect of individual differences in perfectionism and rumination on memories of these four types of events.

One of the arguments about the emotions of regret and contentment was that they are emotions that emerge after some cognitive processing of the event as well as the experience of the consequences of the event. In line with this argument, we found a difference of 9 and 7 years, between memory age of what is defined as cognitively-driven emotions (i.e. regret and contentment) and other positive and negative memories, respectively, while regret and contentment memories, and positive and negative memories did not differ in memory age. This finding supports the distinction between regret and contentment, and other emotions in terms of the immediacy of experiencing them. As outcomes of actions often take time, a delay in the experience of the feeling of regret or contentment was expected.

In terms of memory accessibility, in line with what *fading effect bias* suggests, the number of contentment memories individuals reported was found to be greater compared to the number of regrets memories in the interview group. This finding supports previous literature suggesting that people tend to access positive memories more easily (e.g. Thompson, et al., 1996; Berntsen, 1996). Although one can suggest that this difference may stem from individuals having fewer regret-evoking events compared to contentment-evoking events; controlling for the actual number of particular types of events in autobiographical memory research of this kind is not possible. Controlled experiments in the laboratory

environment may further investigate the source of this difference between regret- and contentment-evoking events in terms of accessibility. A third explanation might be the meaning of contentment “iyi ki” in Turkish which is an inclusive term. More specifically, in Turkish, people feel content as a result of positive events in any kind. For example, pride-evoking, or happiness-evoking events can easily be considered as contentment-evoking memories in general. Turkish language did not allow us to make a clear-cut distinction between contentment and other positive emotions as we did with regret and other negative emotions.

The Effect of Individual Differences

The first two hypotheses were about whether individual differences in perfectionism and rumination level have an effect on the accessibility, and the phenomenology of regret, contentment, positive, and negative memories.

In terms of perfectionism, I predicted as the level of perfectionism increases, the number of regret memories to be remembered would decrease, and the number of contentment memories would increase. However, the data did not support this hypothesis. The perfectionism scale is proposed to have three latent factors as self-oriented, group-oriented, and socially-prescribed perfectionism; however, factor analysis with this sample did not support this factor structure. In terms of its definition, self-oriented perfectionism was the one that was most relevant to relate to individual’s regret or contentment experiences; however failing to get a meaningful factor for this type of perfectionism prevented me from using this subscore directly. As a result, the analyses were conducted with the total perfectionism score, which included information from scale items that were not directly relevant to what I aimed to capture. A direct measurement of individual differences in perfectionism based on the standards individuals set for themselves would have been more appropriate to test this question.

The second prediction about individual differences was that high ruminators would recall greater number of regrets compared to low-ruminators. This prediction was based on the idea that rumination, by its definition, is a type of memory rehearsal specific to negative events of one's life. Since memory rehearsal facilitates memory accessibility, I hypothesized that individuals who are high in ruminative thought would more likely to access their regret memories more easily. However, regression analyses did not reveal supporting evidence for this hypothesis. Ruminative Responses Scale is a well-established measure with good psychometric properties, and even with the limited sample size of the current study, a good alpha level was achieved. Thus, either the selected measure of memory accessibility in the study is not capable of capturing an effect, or that, there is no relationship between rumination levels of individuals and their frequency to think about their regrets.

Temporal Distribution and Phenomenology of Memories Depending on Events Being Categorized as Action or Inaction

In terms of the temporal distribution of regret and contentment memories depending on involving action or inaction events, older participants' inaction regrets and contentments were expected to be remote, and action regrets and contentments were expected to be recent. For this hypothesis, I selected participants 51 or 36 years old or above, for the interview and the online group, respectively, to see the temporal distribution of memories in a greater time range. As all contentment memories from this subsample were specified as actions, only regret memories were analyzed, and no significant pattern was found. This finding contradicted with a previous study (Davison, Feeney, 2008; Gilovich, Medvec, 1995) which found supporting evidence for this particular type of temporal distribution. With the similar logic, I hypothesized, younger adults would report fewer inaction regrets and contentments compared to older adults; however, this hypothesis was not supported either. As the main focus of this study was not on the temporal distribution of regret and contentment memories depending on whether they were

action or inactions, the participants were free to provide either type of regrets and contentments. A more direct way to examine this specific question might be requiring participants to report memories in all four categories (i.e. action regrets, inaction regrets, action contentments, and inaction contentments).

Whereas for a regret memory being categorized as action and inaction was not a significant predictor of its memory phenomenology, there was almost no inaction contentments reported, except 3 out of 54. That was an unexpected, and indirect finding, suggesting that individuals may tend to feel content for actions they take, rather than actions they fail to take. More direct questions and research design can be utilized to investigate such an effect of taking or failing to take actions, and the associated emotions.

Closure

Regarding the notion of “closure” in autobiographical events, it was predicted that, memories of “open” regrets and contentments would be more frequently rehearsed, more detailed, vivid, and emotionally intense and they would be more likely to be remembered from the field perspective compared to “closed” ones. This hypothesis was tested for regret memories only, due to the lack of enough number of open and closed contentments by interview and online groups, and no such effect was found.

Limitations, and Future Research

One of the limitations of this study was that the data were gathered from two different sources: online survey and face-to-face interview. Unexpectedly, a large age difference was found between these two subsamples such that, the participants who took the online survey was significantly younger than those who were interviewed. Additionally, there appeared to be marginally significant differences in the number of regrets and number of contentments reported by the mode of participation (i.e. interview and online). As a result, the data were

analyzed for these two groups of participants separately, resulting in lowered sample size, and lowered statistical power.

A second major limitation was that there were not enough contentment memories that were classified as inactions, especially after the data were divided into two groups. There are several possible reasons for this outcome. It may be possible that the feeling of contentment is associated only with actions. Another reason could be that the way the questions were asked may have led the participants to select only action memories to report. Finally, another reason could be that the outcomes of actions are more immediate or obvious compared to that of inactions and therefore, individuals tend to encode or retrieve them more strongly.

Another important limitation of the study was related to analyzing the memories. Although these memories were reported by the same respondents, in the analyses to test hypotheses 6 and 7, the four types of memories for each individual were treated as if they were independent of each other. Instead of employing single-level (i.e. memory-level) analyses, collecting sufficient number of memories from each respondents and using hierarchical models to analyze that kind of non-independent data would solve this problem.

Overall, this research was an exploratory study addressing the autobiographical remembering of two discrete emotions, regret and contentment, which were rarely studied in this context. Although this kind of a long survey capturing as much information as possible brought some limitations as described above, as an exploratory study, it also helped to see the general picture of the interplay between regret and contentment, autobiographical memory, and individual differences.

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APPENDICES

APPENDIX A – Consent form

AYDINLATILMIŞ ONAM FORMU

Koç Üniversitesi Psikoloji bölümü yüksek lisans öğrencisi Ezgi Aytürk tarafından otobiyografik bellek konusunda yürütülen araştırmaya katılımınız rica olunmaktadır. Bu çalışmada katılımınız tamamen gönüllülük esasına dayanır. Lütfen aşağıdaki bilgileri okuyunuz ve katılmaya karar vermeden önce anlamadığınız her hangi bir şey varsa çekinmeden sorunuz.

ÇALIŞMANIN ADI: Pişmanlık veren olaylara dair bellek süreçleri

ÇALIŞMANIN AMACI

Bu çalışmanın amacı, farklı yaş gruplarından bireylerin pişmanlık anılarına dair bellek süreçlerini incelemektir.

PROSEDÜRLER

Bu çalışmaya gönüllü katılmak istemeniz halinde yürütülecek çalışmalar şöyledir;

Yaşamış olduğunuz bazı olayları özetlemeniz, bu olaylarla ilgili bazı anket sorularına cevap vermeniz ve bireysel farklılıklara dair bazı anketleri cevaplamanız beklenmektedir.

OLASI RİSKLER VE RAHATSIZLIKLAR

Araştırmamıza katılmanın herhangi bir riski yoktur.

TOPLUMA VE/VEYA DENEKLERE OLASI FAYDALARI

Bu çalışmanın amacı, bireylerin yaşadıkları pişmanlık verici olayların ne kadarını ve ne şekilde hatırladıklarının tanımlanmasıdır.

GİZLİLİK

Bu çalışmayla bağlantılı olarak elde edilen ve sizinle özdeşleşmiş her bilgi gizli kalacak, kişilerle paylaşılmayacak ve yalnızca sizin izniniz veya kanunun gerektirdiği ölçüde ifşa edilecektir. Gizlilik tanımlanmış bir kodlama prosedürüyle sağlanacak ve kod çözümüne erişim yalnızca çalışmanın sorumlusu araştırmacıyla sınırlı olacaktır. Tüm veriler, sınırlı erişime sahip güvenli ve şifreli bir veritabanında tutulacaktır.

KATILIM VE AYRILMA

Bu çalışmanın içinde olmak isteyip istemediğinize tamamı ile bağımsız ve etki altında kalmadan karar verebilirsiniz. Bu çalışmaya gönüllü olarak katılmaya karar vermeniz halinde dahi, sahip olduğunuz her hangi bir hakkı kaybetmeden veya herhangi bir cezaya maruz

kalmadan istediğiniz zaman çekilebilirsiniz. Çalışmadan çekilmek isterseniz bir cezası yoktur ve sahip olduğunuz faydaları kaybetmezsiniz.

ARAŞTIRMACILARIN KİMLİĞİ

Bu araştırma ile ilgili herhangi bir sorunuz veya endişeniz varsa, lütfen iletişime geçiniz:

Ezgi Aytürk
Koç Üniversitesi
Psikoloji Bölümü
E: eayturk@ku.edu.tr

Yukarıda açıklanan prosedürleri anladım. Sorularım tatmin olacağım şekilde yanıtlandı ve dilediğim zaman ayrılma hakkım saklı kalmak koşulu ile bu çalışmaya katılmayı onaylıyorum. Bu formun bir kopyası da bana verildi.

Katılımcı Adı-Soyadı

Katılımcı İmzası

Tarih

Araştırmacının İmzası

Tarih

Şahit İmzası

Tarih

APPENDIX B-Autobiographical Memory Questionnaire

Pişmanlık duyduğunuz bir olayı anlatınız.

.....
.....
.....
.....
.....
.....

Lütfen anlattığınız bu olayı göz önünde bulundurarak aşağıdaki soruları cevaplayınız.

- 1) Pişmanlık duyduğunuz bu olayın tarihini gün/ay/yıl olarak yazınız. Eğer tam tarihi bilemiyorsanız yaklaşık bir yıl, mevsim tahminlerine göre bir ay ve tahmini bir gün yazınız.

-----/-----/----- (Gün/Ay/Yıl)

- 2) Yukarıda yazdığınız tarihten ne kadar eminsiniz?

1	2	3	4	5
Hiç emin değilim				Tamamen eminim

- 3) Bu, geri dönüşü olmayan bir olay mı? Geri dönüşü olan bir olaysa, ne kadar kolayca dönülebilir?

Geri dönülemez	Geri dönülebilir					
	0	1	2	3	4	5
	Dönmesi çok zor					Dönmesi çok kolay

- 4) Bu olay bir kerelik bir olay mı, 1 günden uzun bir zamana yayılmış bir olay mı, yoksa tekrarlanmış bir olay mı? Örneğin, birine kötü bir söz söylemek bir kerelik bir olayken yatılı okulda okumak uzun zamana yayılmış bir olay, her yaz güneşte fazla kalıp yanmak ise tekrarlanmış bir olaydır.

Bir kerelik bir olay	Uzun bir zamana yayılmış bir olay	Tekrarlanmış bir olay

- 5) Bu olayla ilgili ne zaman pişmanlık duymaya başladınız?

- Olayın olduğu an
- Olaydan saat sonra
- Olaydan gün sonra
- Olaydan..... ay sonra
- Olaydanyıl sonra

- 6) Bu olaydan pişmanlık duymanıza neden olan şey neydi?

.....
.....
.....
.....
.....

- 7) Bu olaydan hala pişmanlık duyuyor musunuz? Eğer duyuyorsanız yoğunluğunu aşağıdaki ölçeği kullanarak belirtiniz.

Duymuyorum	Duyuyorum			
0	1	2	3	4
Hiç	Çok az	Biraz	Oldukça	Çok

- 7a. Sizce pişmanlığınız daha ne kadar sürecek? ----- ay veya ----- yıl.

8) Size pişmanlık veren bu olayla ilgili aşağıdaki ifadelerden hangisi daha uygun?

- Bu olayın üzerine düşündüm, değerlendirdim ve kapattım.
- Bu olayın üzerinde fazla durmadan, düşünmemeye çalışarak kapattım.
- Bu olay benim için kapanmadı ama üzerinde çok fazla durmuyorum.
- Bu olay benim için kapanmadı ve zihnimi çok meşgul ediyor.
- Diğer.....
.....

9) Bazı olayların tarihini bilsek bile, bu olaylar bize “daha dün olmuş gibi” veya “çok uzun zaman önce olmuş gibi” gelebilir. Size bu olayın üzerinden ne kadar geçmiş gibi geliyor?

- gün
- ay
- yıl

10) Geçmişte yaşadığımız bir olayı hatırlarken, o olayı yaşadığımız halimizi şu anki halimize çok benzer veya farklı bulabiliriz. Siz pişmanlık duyduğunuz bu olayı yaşayan halinizi kendinize ne kadar benzer veya farklı buluyorsunuz?

0	1	2	3	4	5
Şimdiki “ben”le tamamen aynı					Şimdiki “ben”den çok uzak

11) O günkü halinizle bugünkü halinizi karşılaştırdığınızda, o günden bu güne olan değişiminizi nasıl değerlendirirsiniz?

-2	-1	0	1	2
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Çok olumsuz bir yön aldı	Olumsuz bir yön aldı	Değişim olmadı	Olumlu bir yön aldı	Çok olumlu bir yön aldı
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12) Bu olaydan kendinizi ne kadar sorumlu hissediyorsunuz?

1	2	3	4	5	6	7
Hiç sorumlu hissetmiyorum						Tamamen sorumlu hissediyorum

13) Bu olay sizin hayatınızı genel olarak ne kadar etkiledi?

1	2	3	4	5	6	7
Hiç etkilemedi						Çok etkiledi

14) Bu olay hayatınızın hangi alanlarını ne derecede etkiledi? Aşağıdaki tabloyu kullanarak belirtiniz.

Alan	Çok negatif					Etkilemedi					Çok pozitif
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Aile											
Yakın ilişkiler (evlilik, sevgili vs.)											
Arkadaşlık											
Eğitim											

İş											
Hobiler											
Seyahat											
Kişilik/Karakter											
Yaşanan/Çalışılan yer											
Maddi durum											
Sağlık											
Kişisel gelişim											
Diğer											

15) Pişmanlığımızın nedeni sizin zarar görmemiz mi yoksa başkalarının mı?

Ağırlıklı olarak benim zarar görmem			Aynı ölçüde hem benim hem başkalarının zarar görmesi			Ağırlıklı olarak başkalarının zarar görmesi

16) Pişman olduğunuz olay yaşanırken, bu olayın sizin hayatınıza yapacağı etkilerin farkında mıydınız?

1	2	3	4	5
Hiç farkında değildim				Tamamen farkındaydım

17) Pişman olduğunuz bu olay yaşanırken, bu olayın başkalarının hayatına yapacağı etkilerin farkında mıydınız?

1	2	3	4	5
Hiç farkında değildim				Tamamen farkındaydım

18) Bazen başımızdan geçen bazı olayların olduğunu biliriz, ama olayın oluşunu hatırlamayız. Bazen de olayın oluşunu hatırlarız. Siz bu olayın olduğunu biliyor musunuz, hatırlıyor musunuz?

Sadece biliyorum	Hatırlıyorum			
0	1	2	3	4
	Belli belirsiz hatırlıyorum			Tüm ayrıntılarıyla hatırlıyorum

0)

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

-3	-2	-1	0	+1	+2	+3
Çok olumsuzdu			Ne olumlu ne olumsuzdu			Çok olumluydu

20) Bu olay **şu anda** sizin için ne kadar olumlu ya da ne kadar olumsuz bir olay?

-3	-2	-1	0	+1	+2	+3
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Çok olumsuz			Ne olumlu ne olumsuz			Çok olumlu
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0)

21) Bazen geçmişte yaşanan bir olayı gözümüzde canlandırırken olayı, olayın içindeyken gördüğümüz şekliyle, adeta tekrar yaşıyormuş gibi kendi gözümüzden görürüz. Bazen ise olayı dışarıdan seyreden biri olarak hatırlarız. Siz bu olayı hangi biçimde hatırlıyorsunuz?

1	2	3	4
Tamamen olayın içinde yer alıyor gibi			Tamamen olaya dışarıdan bakıyor gibi

22) Bazı anıları hatırlarken insanlar o olayları yeniden yaşıyor gibi olur. Bazı olayların ise olmuş olduğunu hatırlar ama hatırası pek canlı değildir. Bu hatıranız sizin için ne derece canlı?

1	2	3	4	5
Sadece böyle bir olayın olduğunu hatırladım		Olayların birazını canlı hatırlıyorum		Yeniden yaşıyor gibi canlı hatırlıyorum

0)

23) Bu olay hakkında ne sıklıkla düşünürsünüz?

Düşünmem	Düşünürüm				
0	1	2	3	4	5
	Çok az		Ara-sıra		Çok sık

24) Bu olay siz düşünmediğiniz halde ne sıklıkla aklınıza gelir?

Aklıma gelmez	Aklıma gelir				
0	1	2	3	4	5
	Çok az		Ara-sıra		Çok sık

0)

25) Bu olay olduktan sonra bu olayı başkalarına hiç anlattınız mı?

Anlatmadım	Anlattım				
0	1	2	3	4	5
	Çok nadir		Ara-sıra		Çok sık

0)

26) “Bu olay bana bir mesaj verdiği için ya da yaşamımda kritik bir zamanı veya dönüm noktasını simgelediği için benim için önemli bir anıdır.”

Yukarıdaki cümle bu olayla ilgili tutumunuzu ne derece ifade ediyor?

1	2	3	4	5	6
Hiç					Tamamen

- Şimdi sizden bu olay yaşanmasaydı ne olacağını düşünmenizi istiyorum. Diğer bir deyişle, bu olay farklı bir şekilde olsaydı/yaşansaydı nasıl olurdu? Bu alternatif senaryoyu aşağıdaki boşluğa ayrıntılı bir şekilde yazınız.

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1. Daha önce bu alternatif senaryoyu ne sıklıkla düşündünüz?

Düşünmedim	Düşündüm				
0	1	2	3	4	5
	Çok az		Ara-sıra		Çok sık

2. Yukarıda anlattığımız alternatif senaryo yaşansaydı hayatınızın hangi alanlarını ne yönde etkilerdi? Aşağıdaki ölçeği kullanarak belirtiniz.

Alan	Çok negatif					Etkilemezdi					Çok pozitif
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Aile											
Yakın ilişkiler (evlilik, sevgili vs.)											
Arkadaşlık											
Eğitim											

İş											
Hobiler											
Seyahat											
Kişilik/Karakter											
Yaşanan/Çalışılan yer											
Maddi durum											
Sağlık											
Kişisel gelişim											
Diğer											

3. Bazen geçmişte yaşanan bir olayı gözümüzde canlandırırken olayı, olayın içindeyken gördüğümüz şekliyle, adeta tekrar yaşıyormuş gibi kendi gözümüzden görürüz. Bazen ise olayı dışardan seyreden biri olarak hatırlarız. Siz yukarıda anlattığınız alternatif senaryoyu hangi biçimde hayal ediyorsunuz?

1	2	3	4	5	6
Tamamen olayın içinde yer alıyor gibi					Tamamen olaya dışardan bakıyor gibi

0)

4. Pişmanlık duyduğunuz bu olay yaşanmasaydı, yani alternatif senaryo yaşanmış olsaydı hayatınızda neyin farklı olacağını ne sıklıkla düşünürsünüz?

Düşünmem	Düşünürüm				
0	1	2	3	4	5
	Çok az		Ara-sıra		Çok sık



Appendix C-Multidimensional Perfectionism Scale

Aşağıda kişilik özellik ve davranışlarına ilişkin bir dizi ifade bulunmaktadır. Her ifadeyi okuduktan sonra o maddede belirtilen fikre katılma derecenizi 7 (kesinlikle katılıyorum) ve 1 (kesinlikle katılmıyorum) arasında değişen rakamlardan size uygun olanını işaretleyerek belirtiniz. (Örneğin; kesinlikle katılıyorsanız 7'yi, katılıyorsanız 6'yı, Biraz katılıyorsanız 5'i, kararsızsınız 4'ü, bir miktar katılmıyorsanız 3'ü, katılmıyorsanız 2'yi ve kesinlikle katılmıyorsanız 1 rakamını işaretleyiniz). Bu ölçek kişisel görüşlerinize ilgilidir, bunun için “doğru” ya da “yanlış” cevap vermek söz konusu değildir. Önemli olan işaretlediğiniz rakamın sizin gerçek düşüncenizi yansıttığıdır.

		K e s i n l i k l e k a t ı l ı m ı y o r u m							K e s i n l i k l e k a t ı l ı y o r u m
		1	2	3	4	5	6	7	
1	Bir iş üzerinde çalıştığımda iş kusursuz olana kadar rahatlayamam.								
2	Genelde kişileri kolay pes ettikleri için eleştirmem.								
3	Yakınlarımla başarılı olmaları gerekmez.								
4	En iyisinden aşağısına razı oldukları için arkadaşlarımı nadiren eleştiririm.								

5	Başkalarının benden beklentilerini karşılamakta güçlük çekerim.								
6	Amaçlarımdan bir tanesi yaptığım her işte mükemmel olmaktır.								
7	Başkalarının yaptığı her şey en iyi kalitede olmalıdır.								
8	İşlerimde asla mükemmelliği hedeflemem.								
9	Çevremdekiler benim de hata yapabileceğimi kolaylıkla kabullenirler.								
10	Bir yakınımın yapabileceğinin en iyisini yapmamış olmasını önemli görmem.								
11	Bir işi ne kadar iyi yaparsam çevremdekiler daha da iyisini yapmamı beklerler.								
12	Nadiren mükemmel olma ihtiyacı duyarım.								
13	Yaptığım bir şey kusursuz değilse çevremdekiler tarafından yetersiz bulunur.								
14	Olabildiğim kadar mükemmel olmaya çalışırım.								
15	Giriştiğim her işte mükemmel olmam çok önemlidir.								
16	Benim için önemli olan insanlardan beklentilerim yüksektir.								
17	Yaptığım her şeyde en iyi olmaya çalışırım.								
18	Çevremdekiler yaptığım her şeyde başarılı olmamı beklerler.								
19	Çevremdeki insanlar için çok yüksek standartlarım yoktur.								
20	Kendim için mükemmelden daha azını kabul edemem.								
21	Her konuda üstün başarı göstermesem de başkaları benden hoşlanacaktır.								
22	Kendilerini geliştirmek için uğraşmayan kişilerle ilgilenmem.								
23	Yaptığım işte hata bulmak beni huzursuz eder.								
24	Arkadaşlarımdan çok şey beklemem.								

25	Başarı, başkalarını memnun etmek için daha da çok çalışmam gerektiği anlamına gelir.								
26	Birisinden bir şey yapmasını istersem, işim yapılmasını beklerim.								
27	Yakınlarımla hata yapmasını görmeye tahammül edemem.								
28	Hedeflerimi belirlemede mükemmeliyetçiyimdir.								
29	Değer verdiğim insanlar beni hiçbir zaman hayal kırıklığına uğratmamalıdır.								
30	Başarısız olduğum zamanlar bile başkaları yeterli olduğumu düşünürler.								
31	Başkalarının benden çok şey beklediğini düşünüyorum.								
32	Her zaman yapabileceğim en iyisini yapmaya çalışmalıyım.								
33	Bana göstermeseler bile, hata yaptığım zaman diğer insanlar çok bozulurlar.								
34	Yaptığım her şeyde en iyi olmak zorunda değilim.								
35	Ailem benden mükemmel olmamı bekler.								
36	Kendim için yüksek hedeflerim yoktur.								
37	Annem ve babam nadiren hayatımın her alanında en başarılı olmamı beklerler.								
38	Sıradan insanlara saygı duyarım.								
39	İnsanlar benden mükemmelden aşağısını kabul etmezler.								
40	Kendim için yüksek standartlar koyarım.								
41	İnsanlar benden verebileceğimden fazlasını beklerler.								
42	Okulda veya işte her zaman başarılı olmalıyım.								
43	Bir arkadaşımın elinden gelenin en iyisini yapmaya çalışmaması benim için önemli değildir.								
44	Hata yapsam bile, etrafımdaki insanlar yeterli ve becerikli olduğumu düşünürler.								

45	Başkalarının yaptığı her şeyden üstün başarı göstermelerini nadiren beklerim.								
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Appendix D - Ruminative Responses Scale

İnsanlar kendilerini üzgün hissettiklerinde birçok farklı şey düşünür ve yaparlar. Lütfen aşağıdaki maddelerden her birini okuyunuz. Kendinizi **keyifsiz veya üzgün hissettiğiniz zamanlarda**, bu maddelerden her birini ne sıklıkla düşünüp düşünmediğinizi veya yapıp yapmadığınızı belirtiniz. Cevaplarınızı “neredeysse hiç”, “bazen”, “sıklıkla”, ya da “neredeysse her zaman” olarak maddelerin sağındaki kutucuklardan birini işaretleyerek belirtiniz. Lütfen ne yapmanız gerektiğini değil, *genellikle* ne yaptığınızı belirtiniz.

		Neredeysse hiç	Bazen	Sıklıkla	Neredeysse her zaman
		1	2	3	4
1	Ne denli yalnız hissettiğimi düşünürüm.				
2	“Kendimi toparlamazsam işimi yapamayacağım” diye düşünürüm.				
3	Vücut sızlamalarımı ve halsizliğimi düşünürüm.				
4	Dikkatimi toplamanın ne kadar güç olduğunu düşünürüm.				
5	“Bunu hak etmek için ne yapıyorum” diye düşünürüm.				
6	Ne kadar durgun ve isteksiz olduğumu düşünürüm.				
7	Yakın zamanda yaşadığım olayları sorgulayarak neden üzgün olduğumu anlamaya çalışırım.				
8	Sanki artık hiçbir şey hissetmediğimi düşünürüm.				
9	“Neden kendimi kötü hissetmeyi bırakıp hayatıma devam edemiyorum” diye düşünürüm.				
10	Niye hep böyle tepki veriyorum diye düşünürüm.				

11	Tek başıma kalıp neden böyle hissettiğimi düşünürüm.				
12	Ne düşündüğümü yazar ve analiz ederim.				
13	Yakın zamanda yaşadığım bir olayı düşünüp neden daha iyi sonuçlanmadığını sorgularım.				
14	“Bu şekilde hissetmeye devam edersem odaklanamayacağım” diye düşünürüm.				
15	“Başkalarında olmayan sorunlar neden bende var” diye düşünürüm.				
16	“Olup bitenlerle niye daha iyi başa çıkamıyorum” diye düşünürüm.				
17	Ne kadar üzgün hissettiğimi düşünürüm.				
18	Bütün yetersizliklerimi, başarısızlıklarımı, yanlışlarımı ve hatalarımı düşünürüm.				
19	Hiçbir şey yapmaya isteğim olmadığını düşünürüm.				
20	Niçin üzgün hissettiğimi anlayabilmek için kendimi incelerim.				
21	Hislerim hakkında düşünmek için tek başıma bir yerlere giderim.				
22	Kendime karşı ne kadar kızgın olduğumu düşünürüm.				