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The Role of Spirituality in Mortality Salience Effects

Ölümlülük Farkındalığına Verilen Tepkilerde Tinselliğin Rolü

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ABSTRACT

Terror management theory posits that people tend to respond defensively to reminders of mortality by upholding their worldview. This study examines whether people differ in how defensively they respond to death's inevitability and suggests that level of spirituality can be counted as an individual difference determining how one relates to death. Results reveal that spirituality does not moderate the relation between mortality salience and worldview defense. The findings are discussed by referring to potential culture specific confounds in mortality salience effects, along with issues regarding conceptualization and operationalization of spirituality.

ÖZET

Terör Yönetimi Teorisi, insanların ölümlü olduklarına dair farkındalıklarıyla kendi dünya görüşlerini tasdik etmek suretiyle başa çıktıklarını ileri sürer. Bu çalışma, insanların ölümün kaçınılmazlığına illa ki savunmacı bir şekilde tepki vermeyebileceğini; kişinin tinsellik seviyesinin o kişinin ölümlülük farkındalığıyla nasıl ilişkileneceğini belirleyebileceği ihtimalini araştırmayı amaçlamıştır. Veri analizlerinden çıkan sonuçlar bu önermeyi desteklememiştir. Bu bulguları açıklamak için kültürün ölüm ve savunma mekanizmaları arasındaki ilişkiye olan etkisi ile tinselliğin kavramsallaştırılması ve ölçülmesine ilişkin meseleler tartışılmıştır.

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INTRODUCTION

Humans share the instinct for self-preservation with other living organisms; yet unlike other species, they also host the awareness that death is inevitable. Then, how come people psychologically adjust themselves and navigate through their life paths, knowing that all roads are actually dead ends? One possible answer comes from Terror Management Theory (TMT) which suggests that people tend to respond defensively to reminders of death by attempting to maintain faith in their cultural worldview (Pyszczynski, Greenberg & Solomon, 1999). However, what is not covered by this theory is that people may differ in their willingness to embrace death and in how defensively they respond to its inevitability. This study aims to explore whether spirituality, as an individual difference, is related to how people respond to death awareness. In the following section, an overview of the dynamics of terror management is presented in order to offer a theoretical and empirical context onto which the proposed role of spirituality is placed.

1.Terror Management Theory

1.1. General Introduction

Terror Management Theory (TMT) is first proposed by social psychologists Jeff Greenberg, Tom Pyszczynski and Sheldon Solomon

(1986). The theory was largely derived from the work of Ernest Becker (1971, 1973, 1975) who borrowed a great deal from many influential thinkers in Western civilization; such as Otto Rank, Kierkegaard, Nietzsche, Darwin and Freud. Theory builds on the assumption that since all life evolved from simple to complex, all life must have a common denominator: drive for continued existence. Humans, evolving from the same core as other organisms, possess this instinct for self-perseveration. On the other hand, evolution process has taken human beings to a level where humans having acquired distinct cognitive abilities think self-reflectively, symbolically and in the abstract. Then, comes the capacity to acknowledge that one will eventually die with whereabouts and whenabouts of death being unknown and beyond the control of the individual. This pairing of an innate drive for continued existence and the awareness of mortality creates the potential for terror and anxiety, which is a threat to ongoing and purposeful behavior. Thus, to function effectively, TMT suggests, human beings must come up with a way to reduce and handle this existential anxiety.

TMT theorists propose that humans manage this potentially incapacitating fear caused by knowledge of death by developing a “cultural anxiety buffer” composed of two related elements (Arndt, Greenberg, Solomon, Pyszczynski, & Simon, 1997). The first element is “worldview” which is a shared conception of reality that gives meaning and order to experiences offering symbolic immortality. For example, value of national

identity or gender roles could be linked to death concerns in a way that such values provide a sense that one is a part of something bigger –country and womanhood/manhood in these cases- which ultimately outlive the individual (Greenberg, Pyszczynski, Solomon, Rosenblatt, Veeder, Kirkland, Lyon, 1999; Goldenberg, Pyszczynski, Greenberg, Solomon, 2000). The second element of the cultural anxiety buffer is “self-esteem”, defined by TMT theorists as the degree to which people believe they are meeting culturally posed standards. Following the previous examples on worldview, if a person bases her or his identity heavily on nationality or gender roles, how well she or he meets the standards of being a nationalist or woman/man is crucial in order such anxiety buffers to function. To sum, people can alleviate potentially paralyzing existential fear through gaining the promise of immortality from their worldview and through believing that they are living up to the standards of that worldview.

1.2. Evidence for Worldview Defense

In accordance with the above propositions, TMT researchers have hypothesized and found that when reminded of their mortality, (1) people try to uphold their worldviews and attempt to live up to the values prescribed by that worldview and (2) people with naturally high levels of self-esteem and experimentally elevated levels of self-esteem exhibit less defense in response to threats (for a review, see Pyszczynski, Greenberg, & Goldenberg, 2003). The first hypothesis, that making mortality salient

should lead people to bolster their worldviews and attempt to live up to the values of the worldviews (termed worldview defense), is called the mortality salience hypothesis (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). The present study focuses on the worldview defense (rather than self esteem defense) whose related literature, covering the relationship between mortality salience and worldview defense, is presented below.

The fundamental premise behind worldview defense relies on the idea that worldviews serve the function of an anxiety buffer. Since cultural worldviews are socially constructed, faith in their validity strongly depends on the consensual validation from other people. When other people agree with one's worldview, act accordingly and view one in a positive light, this validates one's worldview and increases one's confidence in that worldview. This validation, in turn, increases the effectiveness of the worldview as an anxiety buffer. On the other hand, disagreement with and violation of one's worldview by others decrease faith in this structure and weaken its ability to protect people from anxiety. Thus, TMT posits, because of the need from protection from death-anxiety, people respond favorably to supporters of their worldview and unfavorably to those who threaten it (Maxfield, Kluck, Greenberg, Pyszczynski, Cox, Solomon & Weise, 2007)

Worldview defense has attracted a large and growing interest among researchers in the last three decades. There is convergent empirical evidence

showing that reminders of death (mortality salience; MS) lead to more favorable reactions to ideas and people supporting one's worldview and more unfavorable reactions to those challenging it. In the first research testing MS hypothesis, Rosenblatt and colleagues (1989) asked half of the participants to fill out the Mortality Attitudes Personality Survey, which consisted of two open-ended questions asking participants "to write about (a) what will happen to them as they physically die, and (b) the emotions that the thought of their own death arouses in them" while the other half answered two parallel questions on a different subject (p. 682). Since then, this has become the standard mortality salience manipulation. After prompting participants to think about their own death, researchers asked participants to assign a bail for a hypothetical woman accused of being a prostitute. It was found that participants in the mortality salience condition (those who are reminded of death) set higher bails to hypothetical prostitutes than those in the non-mortality salience condition. Moreover, this difference was not due to mortality salience evoking negative emotions or physical arousal. This research was originally conducted on a sample of municipal court judges and findings were replicated with a sample of college students. (Rosenblatt et al., 1989).

Later, the finding of MS-increased punitiveness was replicated in another study where participants were asked to judge the deserved punishment for moral transgressions presented in 10 vignettes (Florian and Mikulincer, 1997). This line of research indicated that the mortality salience

hypothesis is generalizable to other cultures. Moreover, researchers pointed out that mortality salience hypothesis could be refined to better predict judgments against social transgressors. Specifically, fear of death can be broken down into fear of interpersonal consequences (e.g., loss of social identity and worries about what will happen to loved ones after death) and intrapersonal consequences (e.g., one's body decomposing) (Florian & Kravetz, 1983). Similarly, based on the consequences it yields, violations of values can also be broken down into having interpersonal consequences (e.g., damages to victim's ability to fulfill personal projects and physical health) and intrapersonal consequences (e.g. damages to victim's social identity and severe harms to hers or his friend and family). What Florian and Mikulincer (1997) found is that mortality salience effects are strongest when there is a fit between the type of existential fear and the type of social transgressions. For example, people who feared more the intrapersonal consequences of death assigned harsher judgments against people whose violations had intrapersonal consequences such as a doctor who amputated the wrong patient's leg (Florian & Mikulincer, 1997).

In addition to judging moral transgressions, TMT researchers operationalized worldview defense using different ways to see if the results replicate across different measures of worldview. Many studies have used responses given to essays that are pro- and anti- country, place of residence, or political views as operational definition of worldview defense (e.g., Greenberg et al., 1990; Greenberg, Pyszczynski, Solomon, Simon, & Breus,

1994; McGregor et al., 1998). Such studies indicated that being reminded of their mortality, people not only judge others' compliance to reinforce their worldview, but also praise those who praise their worldview and react negatively to those who criticize or disagree with their worldview.

One may ask how far would someone go in order to defend and promote his/her worldview. According to TMT, people use any available means to alleviate the existential anxiety aroused by being reminded of death. McGregor and colleagues (1998) took this question into consideration and came up with a creative way to give participants an opportunity to get somewhat violent toward others after inducing mortality salience. They first asked half of the participants to think about their own death and the other half to think about the next big exam. Next, all participants were asked to write about their political views and then, after a delay, researchers presented participants an essay which either matched or disdained their political view. These essays were presented as if another student wrote them. As a supposedly second experiment (covered by a story that the study is on taste preferences), participants were asked to give the person, whose paragraph they read, hot sauce to taste. Beforehand, the participants were shown a food preferences form that indicated that the target (whose paragraph they read) disliked spicy food. The findings were in line with TMT predictions. People prompted with death gave the target who disdained their political views more hot sauce compared to (1) those who are not prompted with death and (2) those who are prompted with death but

read an essay convergent with their own views. The researchers later conducted two separate follow-up studies and found that when participants were given the opportunity to judge and to evaluate the author whose essay was worldview threatening to the participant, participants in the mortality salience condition did not later aggress with more hot sauce. Vice versa, when given the opportunity to aggress with more hot sauce, participants in mortality salience condition did not later judge the worldview threatening author harsher than did participants in other groups (McGregor et al., 1998). Taken together, these studies suggest that people use whatever means available to defend their worldview after their mortality is made salient.

1.3. Systematics of mortality salience effects: why and when these effects occur?

According to Pyszczynski and colleagues (1999) who are leading theoreticians in TMT literature, immediately after people focus on their death (i.e., when death related thoughts are still in conscious awareness), “proximal defenses” kick in and remove death related thoughts from consciousness by suppressing these thoughts and/or push death into distant future by denying one’s vulnerability to disease and premature death. In other words, suppression, rationalization and denial are the first aid defenses to handle conscious death-related thoughts. On the other hand, when death thoughts are not in the current focal attention but highly accessible through implicit measures, “distal defenses”, such as worldview

defense, come to the picture.

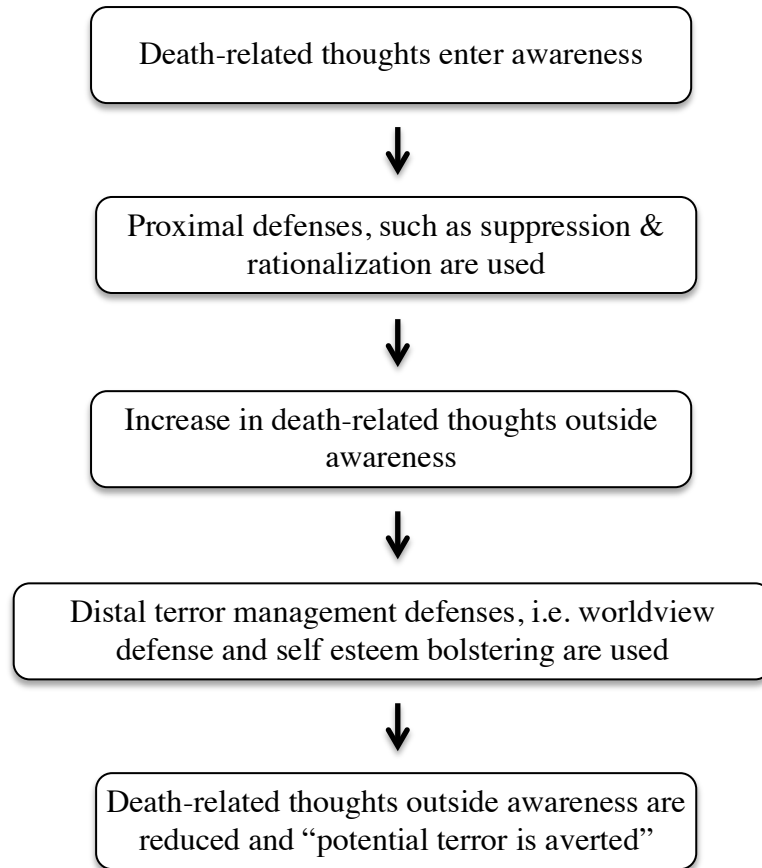


Figure 1. TMT model of defense (from Pyszczynski, Greenberg, & Solomon, 1999, p. 840)

On the face value, this defense bears no rational or semantic relation to death. Instead, worldview defense responds the threat of mortality by enabling people to construe themselves as valuable participants in a meaningful universe and offering symbolic death transcendence to those who live up its values. Taken together, this process of using proximal and

distal defenses against the conscious and unconscious death thoughts respectively is called “dual process model of defense against conscious and unconscious death-related thoughts” (Pyszczynski, Greenberg & Solomon, 1999). Figure 1 presents an illustrated demonstration of this dual process model through which mortality salience evokes worldview defense.

In empirical settings various studies put this proposed model into testing by giving participants a distractor task after mortality salience manipulation (in order to withdraw death thoughts from the focus of awareness) and then measuring the worldview defense. For example, Greenberg and colleagues (2000) found that when there was a distractor task between mortality salience manipulation and measuring worldview defense, proximal defense (denial of one’s vulnerability to an early death) was lower and worldview defense was higher. On the contrary, when there was no delay proximal defense was higher and the worldview defense was lower.

1.4. Individual Differences Influencing Mortality Salience Effects

According to TMT, besides worldview, self-esteem is the other component of the anxiety buffer providing protection against existential fear. Due to presumed role of self-esteem as an anxiety buffer, people with high self-esteem are expected to be less vulnerable to anxiety and therefore show less need to buffer against anxiety through worldview defense.

Existing literature supports that assertion (for a review see, Pyszczynski et al., 2003). For example, people with high self esteem (measured prior to mortality salience manipulation) showed less worldview defense compared to those who have moderate or low level of self esteem (Harmon-Jones et al., 1997). Besides naturally high self-esteem, experimentally enhanced self-esteem is also found to lessen the need for worldview defense (Greenberg et al., 1992)

Authoritarianism is another individual difference that affects the relation between mortality salience and worldview defense. As Adorno and colleagues (1950, as cited in Greenberg et al., 1990) put it, the authoritarian personality develops to function as a defense against fear and is defined by an increased respect for authority, contempt for the disadvantaged, and a rigid and conventional cognitive style. Referring to this conceptualization, Greenberg and colleagues (1990) propose that an authoritarian mindset might develop as a defense against fear of death and play an important role in worldview defense so that highly authoritarian people should respond even more negatively to those who violate their worldview when exposed to reminders of mortality. They found that when mortality is made salient, high authoritarians evaluated dissimilar others more negatively whereas low authoritarians did not. Data from this study indicated that in the absence of mortality salience, high and low authoritarians did not differ in their negative evaluations. Taken together, findings indicate that worldview defense, in the form of belittling dissimilar others, is used by high

authoritarians, but not by low authoritarians, to defend against threat evoked by mortality.

Another individual difference found to moderate mortality salience effect is political liberalism (Greenberg et al., 1992). According to the study conducted by Greenberg and colleagues (1992), political conservatives devalued dissimilar others whereas political liberals did not exhibit this pattern when mortality was made salient. In fact, political liberals prompted with death valued dissimilar others even more compared to those who were not reminded of death. Authors suggested that open-mindedness and tolerance are central aspects of liberal worldview and by acting out their worldview (by valuing dissimilar others), they are actually defending their worldview.

Although these individual differences suggest that people do not exhibit the same level of worldview defense in the face of mortality salience, they do not challenge the idea that people necessarily respond defensively to confrontations with death. As proposed by the authors; people with high self esteem do not defend their worldview because they have already got the protection provided by self esteem (Pyszczynski et al., 2003), high authoritarian people defend their worldview even more due to their authoritarian mindset being their defense against death anxiety (Greenberg, 1990), and finally those with liberal views do not defend their worldview since not defending their worldview itself is the validation of their worldview (Greenberg, 1992). In other words, all these individual

variables could be explained by people's need of protection against death awareness. However, could it be possible that some people do not respond defensively to mortality salience, because they do not need to be defensive?

Recently, researchers have begun to study this question empirically and pointed out some of the inner resources as a moderator of the MS effect. Florian and colleagues (2001) pointed out that hardiness, a personality structure that attenuates threat appraisal and turns challenges into opportunities for personal growth, reduced worldview defense. In line with that, Niemiec and colleagues (2010) have found that trait mindfulness, defined as a "disposition characterized by receptive attention to present experience", reduced both proximal and distal defenses when mortality is made salient. Both lines of research points out that certain resilience factors can mitigate defensive responses to threat evoked by death awareness.

2. Current Study

2.1. Spirituality: As An Individual Difference in Defensive Responses

TMT views human stance against death as a fear based defensive posture towards life and thanks to TMT, a huge literature on death denial and terror management exist in research databases. While recognizing the value of defense mechanisms, one may and should ask whether living in a state of denial is the only way to approach mortality?

This research aims to highlight the idea that people may differ in how defensively they respond to death's inevitability and suggests that level of spirituality can be counted as an individual difference determining how one relates to death. The following is the description of the core features of spirituality along with the rationale for why spirituality might be counted as a moderator variable between mortality thoughts and defensiveness.

The word "spirit" and its corresponding terms in different languages -such as ruach in Hebrew, pneuma in Greek, and spiritus in Latin- draw on concepts related to "air" or "breath" to metaphorically characterize the principle of life (Smith, 1988). Based on 10 pages of reference material in the Oxford English Dictionary (Simpson & Weiner, 1991), Miller and Thoresen (2003) offer two main themes defining spirituality. First one refers to the "notion of being concerned with life's most animating and vital principle of quality, often described as giving life or energy to the material human elements of the person". Second theme that stands out in defining spirituality is the focus on the immaterial features of life. However, as Miller and Thoresen (2003) point out, the multidimensional and immaterial nature of spirituality as a concept defies any clear-cut defining boundaries and point to the fact that it may be more practical to reveal what spirituality is not (i.e., something material) than what it is. In this study, spirituality is defined as a life orientation marked by transcending the individual self and sensing that everything is essentially connected through a cause beyond the self. This definition relies on the works of Ken Wilber (e.g. 1991, 2003)

who has contributed to the understanding of human consciousness a great deal by integrating different approaches to human psyche and written over twenty books that are translated to various languages. This definition is preferred in the current study because it offers a secular and universal understanding of spirituality.

Here, it should be noted that the scales used in current study were in Turkish language. In the scale items, the word “maneviyat/manevi” is used for the word “spirituality/spiritual”. “Maneviyat/manevi” is originally an Arabic word, which is defined as “immaterial”. Turkish Language Association (TDK) offers word “tinsel/tinsellik” to be used instead of “maneviyat/manevi” and the definition emphasizes the immaterial essence of reality; however the usage of this term is mostly limited to philosophical/academic texts and far away from being prevalent in everyday language. Potential implications of using such vocabularies will be pointed out in the discussion section of this thesis, but for now it is necessary to refer to the literature related to conceptualization of spirituality.

As emphasized in the definition above, spirituality involves transcendence. Transcendence is strongly related to awareness; awareness of an invisible and subtle essence, which is the Spirit of the whole universe. As Ken Wilber summarizes in his book *Grace and Grit* (2003), this Spirit is not equal to a person’s individual self or ego. In fact, from a transpersonal view of existence, the individual self or ego is precisely that which impedes the awareness of the Spirit. In Wilber words:

I cannot perceive my own true identity, or my union with Spirit, because my awareness is clouded and obstructed by a certain activity that I am engaged in. And that activity, although known by many different names, is simply the activity of contracting and focusing my awareness on my individual self or personal ego. (By doing so) I can't find or discover my prior identity, my true identity, with the All. And as for my own being itself, it certainly does not seem to be one with the All, one with everything that exist, one with infinite Spirit; rather, it seems completely boxed up and imprisoned in this isolated wall of mortal flesh. (p. 102).

Wilber points out that the more one's awareness is self-centered and preoccupied with the individual ego, the more alienated one's existence becomes. Then, it may be claimed, from a transpersonal view, that worldview defense proposed by TMT is related to the individual ego and has nothing to do with the person's true existence. In fact it is what breaks the genuine existence apart from the Spirit. As TMT literature points out; when confronted with mortality reminders, people judge, devalue and even aggress to those who have the potential to invalidate their worldview. All these attempts can be seen as the investments in the personal ego or "activities", as Wilber puts it, "of focusing my awareness on individual self" which makes human body a prison and true identity a prisoner.

As long as one holds on to the individual ego, it is destined to de cease as the body physically dies. Then the only choice is to deny and

repress death in ways TMT has already put forward. However, as Wilber underlines (1991, p. 62), this is not the only option; men and women also have the potential to transcend it in the “superconscious All”. He claims that in order to transcend death terror, one must transcend the separate self that is the death terror itself: death terror comes into existence with the emergence of separate self, and it disappears as one gets to transcend the self.

As the person transcends the self through enlightenment or spiritual practice, it does not mean that the person no longer suffers (Wilber, 2003, p. 154). She or he continues to feel hurt, anguish or pain but adversaries of life, and even the idea of death, does not threaten his or her existence anymore. In other words, transcendence brings along the realization that no matter how much suffering might occur, it does not damage fundamentally her or his perception true existence. Even the physical death of the body does not affect the continued existence of real being (true existence) since existence is no longer identified with individual ego. It paves way to a relaxing and embracing attitude toward everything. Data from empirical studies are in line with this premise. Research conducted with AIDS and cancer patients revealed the positive impact of spirituality on patients’ psycho-social adaptations (Simoni, Martone, & Kerwin, 2002; Jenkins & Pragament, 1995). It can be claimed that what helps these patients’ adaptation to their condition is the way they structure the meaning of the disease as threats to the individual ego but not to their true existence. Put it

differently, a truly transcendental view of life lifts person above self-centered concerns about self-preservation, because self is positioned in something larger and more long lasting than oneself (Wong, 2008). Thus, those with transcendental view of life would not cling to mechanisms to defend particular worldview when reminded of death. Instead, they acquire the potential for a pro-active, meaning-based positive posture toward life by creating meaning and defining how they relate themselves to a particular condition.

From this perspective, even the greatest adversities of life are embraced as means for further self-exploration, personal growth and meaning making. In fact, awareness of death plays a crucial role in living an authentic life. Many existentialists thinkers point out the irony that in order to live authentically, people must confront what they try to avoid- namely death (Martin, Campbell, & Henry, 2004). Only by embracing the unknown, uncertainty and death, people get to pursue goals that transcend self-interest and live a purposeful, meaningful, authentic and vibrant life and when a person is preoccupied with living a purposeful, meaningful, authentic and vibrant life; then one can argue that death is no longer a major concern (Wong, 2010; Yalom, 1980).

As pointed out previously, spirituality can be seen as a life orientation within which everything is experienced as a part of a greater Whole. In contrast to linear and dualistic Aristotelian logic prevalent in the Western culture, where TMT is originally born, spirituality aligns with

eastern cultures which emphasize the constant flux in the universe and views seemingly contradictory elements, communicated as the yin and yang, in all things (Rodgers-Spencer, Peng, & Wang, 2010). The notion of yin and yang, taking roots from Eastern Taoist philosophy, points out the interplay of life and death in existence (Huainanzi, 2010 as cited in Me-Kellams and Blascovich, 2012). Contrary to how TMT positions death as the rival of life; within the framework of spirituality, death is perceived as inextricably linked to life, such that one would not exist without the other. In such a conceptualization death is seen as a complementary not an enemy one should guard against. Me-Kellams and Blascovich (2012) got interested in how people who perceive the world in a holistic manner respond to death and conducted cross-cultural empirical studies. They found that when confronted with death, European Americans chose responses that aimed at achieving immortality through worldview defense whereas East Asians chose responses that focused at engaging and enjoying life. They point out that this non-defensive way of responding to mortality stems from the holistic mindset common among East Asian participants.

2.1.1. Issues regarding conceptualizing and measuring spirituality

Until recently, spirituality has been a neglected topic in social sciences, particularly in academic circles, due to claims that it cannot be studied empirically (Miller and Thoresen, 2003). Miller and Thoresen

(2003) point out two possible reasons for such exclusion. One philosophical basis for opposition to the scientific study of spirituality comes from materialism raising the idea that there is nothing to be studied because spirituality is immaterial and beyond the senses. A possible second reason is essentially the materialist argument in reverse: that is, science is unable to study spirituality because scientific methods relying on direct observation and replication offer inappropriate ways to understand spiritual tenets, that is inherently ineffable and subjective. However, with the rise of existential and phenomenological approaches in psychotherapy, this neglected area of research began to mature in 1990s (Ho & Ho, 2007).

Although the idea of spirituality is not a new one, debate regarding how to conceptualize and operationalize spirituality still dominates research databases. Substantial amount of debate is reserved for the relationship between religiosity and spirituality. Although over the past several decades the terms religion and spirituality have been used interchangeably as if they are equivalent of each other, there has been a recent trend toward differentiating two concepts (Russell & Yarhouse, 2006). Some researchers began to view religiosity as a subset of spirituality (Richards & Bergin, 1997), while there are also those who get to see religiosity as more inclusive than spirituality (Hill & Pargament, 2003). Such proposed inclusive-exclusive relationships between spirituality and religiosity negate the possibilities of being religious without being spiritual or being spiritual without being religious. From a more secular point of view, some raised the

idea that they might be two overlapping concepts such that neither is a sufficient or necessary condition for each other. More specifically, it is possible to be religious without being spiritual or spiritual without being religious, be both or be neither (Ho & Ho, 2007).

In order to discuss a proposed distinction and relation between spirituality and religiosity, it is important to step back and clarify what do these words refer to.

Wilber (2003) differentiates between two types of religion: Exoteric and esoteric religion. Exoteric, or “outer” religion, is a “mythic” one that is fundamentally concrete and literal. It dictates an unquestionable belief in myths such as that Moses parted the Red Sea, Christ was born from a virgin, Eve is created from one of Adam’s ribs, Krishna made love to four thousand cow maidens, and so on. One is safe and saved as long as she or he undoubtedly believes in such myths. Esoteric religion, on the other hand, has nothing to do with such mythical religion.

Wilber (2003) uses the concepts of esoteric religion and spirituality interchangeably. To explain “esoteric religion”, namely spirituality, he emphasizes direct experience and personal awareness. While exoteric religion asks complete obedience to dogmas, esoteric religion “is a set of personal experiments that you conduct scientifically in the laboratory of your own awareness” (p.177). Only via experiencing and experimenting, transcendental knowledge of the oneness is acquired.

Explaining the mindset of exoteric religions, Wilber (2003) points out consciousness level of children between ages of six to eleven. During this period, as the self is separated from the other, an omnipotent God replaces omnipotence attributed to the self. In order for the wishes to be fulfilled, God must be satisfied so that God can create miracles that can change the course of events in favor of one's self. However, as the next structure of consciousness emerges, child gets in to a rational state of mind and abandons such mythic mindset - unless such beliefs are socially reinforced. In this rational state, the idea of a God serving to the person's egoistic wishes is given up and myths are viewed as just myths – no metaphorical or allegorical interpretations accompany them. Moving further in different levels of consciousness, one has potential to realize that there could be more than just “the surface of appearances”. Knowledge of a single Spirit -oneness of everything- comes along not as a dogmatic belief but as an interior experience. To sum, Wilber distinguishes between exoteric religion and esoteric religion (spirituality), and uses different levels of consciousness to discuss these two types: a mythical and more primitive worldview is associated with the former, while more transcendental and higher level of consciousness is associated with the latter (Wilber, 2003).

Associating exoteric religion and spirituality with different levels of consciousness seems to negate the possibility of being exoterically religious and spiritual at the same time. However does it mean that a person cannot define oneself as spiritual and religious at the same time? Wilber (2003)

describes the followers of mythic religions who interpret the myths metaphorically (instead of believing in the literal meanings) as esoterically religious/spiritual. In other words, it seems like religiosity and spirituality can be overlapped as long as the religiosity is not defined solely on exoteric terms. Moreover, it should be noted that although mythic and transcendental levels of consciousness seems qualitatively different from each other, these levels are better understood as points in a continuous spectrum of consciousness (Wilber, 1975). It might imply that a person could be in anywhere between being exclusively exoterically religious or spiritual.

Several others make a distinction between religiosity and spirituality in a similar way Wilber makes a distinction between exoteric religiosity and esoteric religiosity (spirituality). Paranipe (1988) points out the “theological, dogmatic, ritualistic, liturgical, magical” aspects associating with religiosity, but not spirituality. Ho (1995) defines religiosity by emphasizing institutional and denominational affiliations and highlights that spirituality does not necessarily have an institutional or denominational expression. Rather, spirituality concerns transcendent or existential questions that have been raised in diverse cultures, regions, and time periods since the first human began reflecting on her own existence.

When it comes to measuring spirituality, the fact that spirituality is not directly observable and spiritual experiences are not easily articulated verbally makes assessment difficult. Rather than the linguistic modality, many spiritual experiences are esthetically felt in a visual, kinesthetic, or

musical manner (Averill, 1998). Moreover, the experiencing person may not even identify such experiences as spiritual (Ho & Ho, 2007). Still, researchers have relied almost exclusively on paper and pencil self-report measures, claiming that although spirituality is not readily observable, its effects on a person's life in different domains of life can be accessed via self-report (Hill & Pargament, 2003). Besides self-report measures, physiological correlates of spiritual experiences have also been depicted recently (Seeman, 2003). Some others suggests that dreams could offer an opportunity to investigate spirituality (Ho & Ho, 2007).

2.2. Statement of Purpose, Main Hypothesis, and Potential Implications

This study, without underestimating the terror of death or value of defense mechanisms, challenges the idea that self-preserving defenses are the only means to face death awareness and points out that a spiritual, self-transcendental life orientation can make room for non-defensive approachment to death. More specifically, this study hypothesizes a two-way interaction of level of spirituality with MS condition, such that the effect of MS on worldview defense would be evident only among those with low spirituality level.

By doing so, it contributes to a neglected and newly growing body of research suggesting that defensive responses to MS can be attenuated by inner resources such as mindfulness (Niemic, Brown, Kashdan, Cozzoline,

Breen, Bristol, & Ryan, 2010) and hardiness (Florian, Mikulincer, Hirschberger, 2001). Moreover, it aims to provide empirical support for the idea raised by many existentialist and trans-psychologist writers: Death is not necessarily a source of terror which one should be guarded against for those who are freed from self-centered concerns and limiting nature of the ego, who are inclined to embrace contingencies of life with both positives and negatives, who make conscious choices and creates meaning out of even the greatest adversaries of life. This study can and should be seen as a reminder that as people go forward in their spiritual journey to liberate themselves from individual ego, more accepting attitude toward life and death comes along, bringing a more proactive stance toward life which make a spontaneous, authentic and vibrant living possible.

Moreover, the current study has the potential to contribute to ongoing debate regarding the conceptualization and operationalization of spirituality. Given that psychological research on spirituality involving Muslims is almost nonexistent (Ho & Ho, 2007), conducting this study in Turkey –a predominantly Muslim country- may shed light onto the understanding of spirituality in a context, which is not studied extensively before.

METHOD

1. Sample

The sample of the study was recruited through convenience sampling. Thus no claim of representativeness of the sample may be stated. Information regarding the study is disseminated via telephone and internet, starting with the researcher's and his/her family's social and business network. During the data collection phase, participants were asked to suggest an acquaintance whom they thought might show willingness to participate in the study, enabling snowball sampling.

In a validation study of the ANPS spirituality was found to positively correlate with age (Özkarar-Gradwohl et al., 2014). Thus, in order to catch variability in the sample in terms of spirituality level, participants from different ages were recruited. Participants' age ranged between 18 and 68. In order to intentionally equal the number of male and female participants, two males and two females were recruited for each age. Thus the total number of participants added to 204.

Subjects were assigned to two groups (mortality prompt vs dental pain prompt) based on convenience. However, while assigning the participants, their sex was taken into consideration. Given that 4 participants (2 male and 2 female) were recruited for each age; one female was given the mortality prompt, while the other female of the same age was given the

dental pain prompt, and the same process was followed for the males of the same age. The two groups did not differ in terms of demographic variables.

Taking into consideration the claims of existing literature that idea of cancer is associated with elevated death-related thoughts outside awareness, people diagnosed with cancer and/or those having a first degree relative diagnosed with cancer were not included into the sample. An additional exclusion criterion was failure to complete the questionnaire. According to these exclusion criterion; (1) 1 person diagnosed with cancer, (2) 2 people having a first-degree relative diagnosed with cancer, and (3) 7 people who failed to complete the questionnaire were excluded from the sample and replacements were found.

Among 204 participants, the age ranged from 18 to 68 with a mean of 43 ($SD= 14.75$). 102 (50%) were women and 102 (50%) were men. 82 (40.2%) participants were either university student or graduates, whereas 61 (29.9%) and 41 (20.1%) participants were high school and elementary school graduates, respectively. Only 16 (7.8) participants were either master level students or graduates, while only 4 (2%) participants were doctorate level students or graduates. 136 (66.7%) participants were married, while 51 (25%), 9 (4.4%), 8 (3.9) were single, divorced and widowed, respectively. In terms of occupational status, 108 participants were employed, 37 (18.1%), 35 (17.2), 22 (10.8), 2 (1%) participants identified themselves as housewife, retired, student and unemployed, respectively.

2. Procedure and Instruments

In line with the TMT literature (e.g. Vess, Routledge, Landau, & Arndt, 2009), a cover story was presented to participants such that the study was told to be about testing a newly developed scale measuring personality traits. The questionnaire consists of five parts: First, all of the participants filled out a short form that collected data on participants' background information (see Appendix A). Second, they completed The Turkish Version of the Affective Neuroscience Personality Scale (ANPS) (see Appendix B). Third, participants answered two open-ended questions about either their own death or dental pain (see Appendix C). Fourth, they completed a word puzzle (see Appendix D). Finally, Moral Transgressions Scale (Flowrian & Mikulinger, 1997) was presented to participants to assess worldview defense (see Appendix E).

Background Information Form

In a form developed for this study, information regarding participants' sex, age, educational level, marital status and occupation was collected.

Spirituality

In order to measure spirituality, The Turkish Version of Affective Neuroscience Personality Scale (ANPS) was used. ANPS was developed by

Davis, Panksepp and Normansell (2003) to measure the activities and the influences of six neurologically based affective networks; Play, Seek, Care, Fear, Anger and Sadness (as cited in Özkarar-Gradwohl et al., 2014). Each of six subscales consists of 14 questions; 7 positively and 7 negatively formulated. The seventh subscale was introduced to measure the level of spirituality, which is depicted as a higher human mental function. Davis, Panksepp, and Normansell (2003, p.60) operationalized spirituality as “feeling connected to humanity and creation as a whole, feeling a sense of oneness with creation, striving for inner peace and harmony, relying on spiritual principles, and searching for meaning in life”. Based on this operationalization, they generated the spirituality subscale comprising 12 questions; 6 positively and 6 negatively formulated.

All questions in the ANPS were designed to be answered on a four-point Likert scale. Every participant receives 7 scores as the result of the scale; Play, Seek, Care, Fear, Anger, Sadness and Spirituality. Although only the spirituality subscale relates to the objective of this study, the whole scale was administered in order to be loyal to the way it is standardized, to validate the cover story and to investigate the potential effects of other affective networks.

The original ANPS is translated to Turkish by Berrak Karahoda and back translated to English by Hanna Nita Scherler and Gökçe Özkarar for translation check (Özkarar-Gradwohl et al., 2014). Özkarar-Gradwohl et al. (2014) studied the psychometrics properties of the Turkish version of ANPS

in adult samples and calculated a Cronbach alpha score of .78 for the spirituality subscale, indicating a good reliability. The Cronbach's alpha score of the spirituality subscale found in this study is reported in Results section.

Mortality Salience (MS) vs Dental Pain Prompt

After completing the Turkish version of ANPS, participants responded two open ended questions adapted from Greenberg et al (1994). Half of the participants were asked to "Briefly describe the emotions that the thought of your own death arouses in you" and to "Jot down, as specifically as you can, what you think will happen to you physically as you die" while the other half answered two parallel questions regarding the experience of dental pain, a generally aversive topic used frequently in TMT research (e.g., Vess, Routledge, Landau, & Arndt, 2009).

In earliest MS studies, effect of mortality salience was simply compared with neutral control conditions in which participants were asked questions about things like watching television or eating their favorite foods, or in which no alternative priming of any kind was conducted (e.g. Greenberg et al., 1990). However, using neutral conditions, studies were unable to address the possibility that the observed effects were due to the more general category of aversive or anxiety producing events and nothing to do with death specifically. Thus, researchers began to compare the effects of thoughts of death with various control conditions in which participants

were asked parallel questions about other aversive topics; such as dental pain, paralysis, giving a public speech (for a review, see Greenberg et al., 1997). Whereas these control conditions sometimes produced negative affect, they did not yield response patterns that mortality salience does (e.g., Greenberg, Simon, Porteus, Pyszczynski, & Solomon, 1995) implying that the effects of MS reflects a specific response to thoughts of death- rather than a general response to aversive thought per se. By using dental pain prompt, the current study follows the footsteps of relatively more recent mortality salience studies.

Delay

As noted previously, distal defenses such as worldview defense occur most prominently when death thoughts are highly accessible but not in the focus of conscious awareness (e.g. Greenberg, Pyszczynski, Solomon, 1999). Thus, participants completed a word-search task that served as a delay exercise between the salience prompts and the dependent measure. Specifically, participants were asked to find the names of four cities hidden in a 7x7 letter matrix puzzle. Puzzles have been used in several TMT studies as distractor tasks (e.g. Niemiec et al., 2010).

Worldview defense

In this study, worldview defense is operationalized as judgments of the severity of and recommendations of punishment for social

transgressions. Florian and Mikulincer (1997) were the first ones who operationalized worldview defense in this way and building on this operationalization they developed Moral Transgression Scale. This scale presented participants a series of 10 vignettes that described a unique social transgression. A sample vignette is as follows:

A doctor mixed up the records of two patients with the same last name and amputated the leg of the wrong patient. "it is impossible to believe" said the patient as she stared in disbelief at the empty space on her bed where her left leg was supposed to be. "I came in for a simple knee operation and woke up without leg.

After each vignette, participants were asked two questions: (1) "How severe was this wrongdoing?" and (2) "How heavily should the perpetrator of this wrongdoing be punished". Responses were made on a 7-point scale from 1 (indicating *not severe at all* for the first question and *very mild punishment* for the second question) to 7 (indicating *extremely severe* for the first question and *very severe punishment* for the second question). The mean of 20 ratings yields the score of judgments of social transgressions; higher scores reflecting harsher judgments of social transgression.

In this study, the scale was translated to Turkish by the researcher herself. Translation check was conducted by Hanna Nita Scherler. The original scale yields a Cronbach's alpha score of .91 (Florian& Mikulincer, 1997).

3. Observations

Before going into reporting results, it is worth to mention some observations regarding how participants reacted to the questionnaires. These notes by no means affect the statistical analyses; however they may contribute to the discussion of results.

Not all the questionnaires are completed in the presence of the researcher, since almost 60% of the distributed questionnaires were completed in take-home format. Among those whom had the researcher in the room while responding the questions, 12 people asked the researcher to clarify an item in the Spirituality subscale which states “feeling a oneness with all of the creation gives more meaning to my life” (Turkish translation: *Evrenle bir bütün olduğumu hissetmek hayatıma daha fazla anlam katar*). In response, the researcher instructed them to answer the question, as they understand it. None of them left the item blank. Post-administration review of the data indicated that none of the demographic variables seemed to be common among those 12 people with the exception of education level: Only 1 person had an education level of university, whereas 6 people were elementary and 5 were high school graduates.

Moreover, one participant feedbacked the researcher, claiming that the frequency adverbs in some items clouded his judgment. For example, for the item “I rarely rely on spiritual inspiration to help me meet important challenges” (Turkish translation: *Önemli zorlukların üstesinden gelmek için*

nadiren maneviyata sığmırım), he said that he would like to report that he does it “often”. However, he was not sure that if he marked “strongly disagree”, it would mean “never” (*I disagree because I never do that*) or “often” (*I disagree because I often do that*). It is unknown whether other participants experienced such confusion as well or it was a one-case exception; still it might raise some questions regarding the comprehensibility of response options for some items.

RESULTS

Predictor variables included spirituality scores and mortality salience versus dental pain prompt. Criterion variable was the Mortality Transgression Scale score indicating how harshly a social violation is judged and punished. It was hypothesized that there is an interaction effect of spirituality and mortality salience on the judgments of social transgressions. Before going into investigating the hypothesis, descriptive analyses regarding each variable are run and presented below.

1. Spirituality Subscale of the Turkish version of ANPS

1.1. Reliability of the Spirituality Subscale

Reliability analysis of the Spirituality subscale yielded a Cronbach's alpha score of .51, indicating a poor reliability. Given that the Cronbach's alpha score of .78 is found in the original reliability study of the Turkish version of ANPS (Özkarar-Gradwohl et al., 2014), it was worth paying attention to the gap between two scores. In terms of the sample characteristics, the major difference between the two studies was the distribution of educational level. In the original reliability study conducted by Özkarar-Gradwohl et al. (2014) participants with high school or primary school education constituted only 6.2% of the sample, whereas in the current study 50% of the sample had high or primary school education.

When those with high school or primary school education were excluded from sample and the reliability analysis was run on a sample composed of participants with university, masters and doctorate level of education, Cronbach's alpha score was found to be .77, which was almost equal to what was found by Özkara-Gradwohl et al. (2014). Moreover, when high school graduates were added to the analysis, reliability score dropped back to .51, suggesting that university level education was the minimum threshold for spirituality subscale to be reliable.

Because spirituality subscale is found to be a reliable measure in a sample composed of 102 participants with university, masters or doctorate level education, subsequent statistical analyses were run on this sample.

In this sample, number of male and females were equal to each other. Age ranged from 19 to 67 ($M = 38.31$, $SD = 14.06$). 82 (80.4%) participants were either university student or graduates, 16 (15.7%) had a master level of education whereas only 4 (3.9%) were doctorate level students or graduates. 60 (58.8%) participants were married, while 35 (34.3%), 5 (4.9%), 2 (2%) were single, divorced and widowed, respectively. In terms of occupational status, 64 (62.7%) participants were employed, 16 (15.7%), 11 (10.8%), 9 (8.8%), 2 (2%) participants identified themselves as student, retired, housewife and unemployed, respectively. Table 1 presents demographic variables of the sample.

Table 1

Demographic Background of the Sample, N=102

	<i>M</i>	<i>SD</i>
Age	38.3	14.7
	n	%
Gender		
female	102	50
male	102	50
Education		
university	82	80.4
masters	16	15.7
doctorate	4	3.9
Marital Status		
married	60	58.8
single	35	34.3
divorced	5	4.9
widowed	2	2
Occupational Status		
employed	64	62.7
student	16	15.7
retired	11	10.8
housewife	9	8.8
unemployed	2	2

Since other subscales of ANPS are not in the focus of this study, statistics related to these subscales are presented in Appendices section. For the reliability coefficients of other subscales, please refer to Table F1 and F2 in the Appendix F.

1.2. Correlations with Other Subscales of ANPS

Table 2 presents correlations between spirituality and other subscales of ANPS along with means, standard deviations and Cronbach's alpha scores of each subscale. As Table 2 shows, spirituality was significantly correlated with only care subscale ($r = .37, p < .01$). Higher spirituality was associated with higher care.

Table 2

Descriptive Statistics, Correlations, and Subscale Reliabilities

	1	2	3	4	5	6	7
	N=102	N=102	N=102	N=102	N=102	N=102	N=102
Spirituality	-	.05	-.12	.37*	-.12	.14	-.07
α	.77	.61	.65	.69	.71	.62	.47
M	20.70	25.78	20.65	26.46	23.82	23.29	18.99
SD	5.02	3.94	4.46	4.86	5.09	4.15	3.44

Note. 1 = spirituality, 2 = seek, 3 = fear, 4 = care, 5 = anger, 6 = play, 7 = sadness

* $p < .01$

Table F1 and F2 in Appendix F presents intercorrelations among other subscales of ANPS.

1.3. Spirituality and Demographics

When age was considered as a continuous variable, spirituality did not correlate with age ($r = .04, p > .05$). Similarly, when participants were categorized into three age groups and one way ANOVA analysis was run, groups did not show a difference in terms of spirituality level $F(2,99) = .15, p > .05$. Means and standard deviations of Spirituality scores are presented in Table 3 according to different age groups.

Table 3

Means and SDs of Spirituality Scores for Different Age Categories

Age Groups	<i>N</i>	<i>M</i>	<i>SD</i>
19-28	32	20.50	5.08
29-43	35	20.51	5.08
44-67	35	21.08	5.04

On the other hand, independent samples t-test analysis indicated a significant relation between spirituality and gender so that females ($M = 22.13, SD = 4.69$) had significantly higher spirituality scores compared to males ($M = 19.27, SD = 4.98$), $t(100) = 2.99, p < .01$.

No statistical analyses was run to see if spirituality is related to education level, marital status or occupational status due to insufficient number of participants in some categories of these variables (such as doctorate level of education).

2. Mortality Salience versus Dental Pain Prompts

If the participants were assigned to the groups of Mortality Salience or Dental Pain prompts, then no significant difference was expected between two groups in terms of spirituality and demographic variables. However, since the assignment was based on convenience, there was possibility that two groups might show differences that could affect the proposed interaction effect between spirituality and mortality salience.

As revealed by Chi-square tests of independence, two groups did not differ from each other in terms of gender, $X^2(1, N=102) = .35, p>.05$; education level, $X^2(2, N=102) = 1.82, p>.05$; occupational status $X^2(4, N=102) = .07, p>.05$; and marital status $X^2(3, N=102) = 5.32, p>.05$.

The difference between the mean age of mortality salience group ($M=40.22, SD = 14.91$) and dental pain group ($M = 36.09, SD = 12.80$) was not significant either, $t(100) = 1.49, p> .05$.

An independent samples t-test analysis revealed that those who were prompted with mortality ($M= 20.69, SD = 4.51$) did not differ from those

who were prompted with dental pain ($M = 20.28$, $SD = 4.51$) in terms of spirituality $t(100) = .646$, $p > .05$.

To sum up, two groups (mortality salience - dental pain) did not significantly differ from each other in terms of demographic variables and spirituality.

3. Moral Transgression Scale (MTS) and Demographics

Moral Transgression Scale yields a Cronbach's alpha score of .90 signaling a high internal reliability.

As to demographics, age does not correlate with MTS scores, $r(101) = -.093$, $p > .05$. Moreover, females ($M = 6.15$, $SD = .53$) and males ($M = 5.92$, $SD = .68$) did not differ from each other in terms of MTS scores, $t(100) = 1.94$, $p > .05$.

No statistical analyses was run to see if MTS scores differ across education level, marital status or occupational status due to insufficient number of participants in some categories of these variables.

As far as age and gender were concerned, MTS did not have a significant relation with demographic variables.

4. Role of Spirituality in Mortality Salience Effects

4. 1. Spirituality as a Dimension

In order to test the hypothesized interaction effect of spirituality and mortality salience on judgments of moral transgressions, hierarchical regression analysis was run. Controlling for spirituality and group (Mortality Salience vs Dental Pain prompt) in Step 1, interaction of spirituality with group added in Step 2. Results indicated that interaction of spirituality with group did not predict judgments of social transgressions, $\beta = .02$, $p > .05$. In other words, the main hypothesis of the study was not supported. Table 4 presents related statistics of the regression model.

Table 4

Coefficient Values for the Regression Model.

	<i>b</i>	<i>SE b</i>	β	ΔR^2
Step 1:				
Spirituality	.03	.01	.23*	
Group	-.03	.12	-.02	.05
Step 2:				
Spirituality*Group	-.01	.02	-.19	.00

Note. * $p < .05$

4.2. Spirituality as Categorical: Low and High Spirituality

To test the role of spirituality in moderating the relation between Mortality Salience and judgment of social transgression, another way to go was to compare people with high spirituality levels with those of low spirituality levels. For this purpose, participants were first categorized according to their spirituality level. Participants who scored in the highest quartiles of spirituality were label as high spirituality group and those who scores in the lowest quartile as low spirituality group. Then, 2 (Mortality Salience vs Dental Pain prompt) x 2 (High spirituality vs Low Spirituality group) ANOVA was conducted. Table 5 presents related means and standard deviations.

Table 5

Mean MTS scores with SDs for 2 (Mortality Salience vs Dental Pain Prompt) x 2 (high vs low spirituality) ANOVA.

	Mortality Salience Prompt		Dental Pain Prompt	
	<i>N</i> = 24		<i>N</i> = 26	
High Spirituality	<i>n</i> = 14		<i>n</i> = 12	
<i>n</i> = 26	<i>M</i> = 6.23	<i>SD</i> = .17	<i>M</i> = 6.09	<i>SD</i> = .18
Low Spirituality	<i>n</i> = 10		<i>n</i> = 14	
<i>n</i> = 24	<i>M</i> = 5.64	<i>SD</i> = .19	<i>M</i> = 5.69	<i>SD</i> = .17

Results indicated that there was a main effect for spirituality $F(1,48) = 5.59, p < .05$. In other words, participants who scored high in spirituality judged social transgressions more harshly than participants who scored low

in spirituality, regardless of whether they were prompted by mortality salience or dental pain. There was no main effect of mortality salience on judgments of social transgressions, $F(1,48) = .45, p > .05$. Additionally, interaction effect of spirituality and mortality salience was not significant either, $F(1,48) = .02, p > .05$. Figure 2 depicts the means of 2x2 ANOVA analysis.

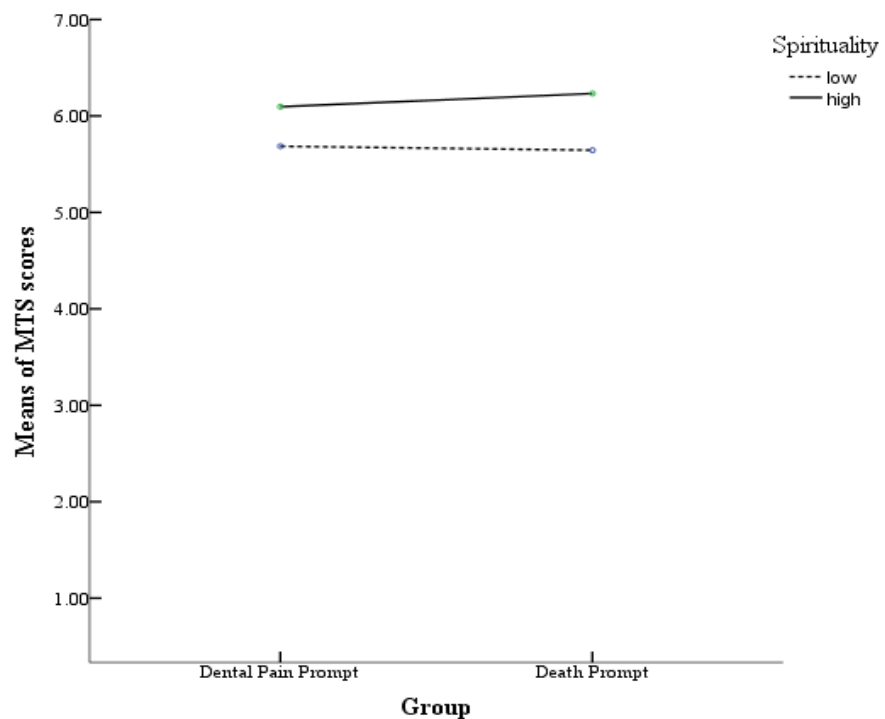


Figure 2. Mean Moral Transgression Scale scores by Group (Mortality Salience vs Dental Pain Prompt) and Spirituality (low vs high).

5. Spirituality and Moral Transgressions (MTS)

Although 2 (Mortality Salience vs Dental Pain Prompt) x 2 (High spirituality vs Low Spirituality Group) ANOVA did not reveal an interaction effect of spirituality and mortality salience on judgments of moral transgressions, it pointed out a significant relation between spirituality and judgments of moral transgressions. To investigate this relationship further, correlation analysis was run and it was found that spirituality is positively correlated with MTS scores, $r(100) = .23$ $p < .05$. Regressing spirituality on MTS revealed that spirituality predicted 5.3% of variance in MTS scores, $R^2 = .053$ $F(1,102) = 5.56$ $p < .05$.

DISCUSSION

1. Reliability of Spirituality Subscale

Psychometric analysis indicated that education level of the sample plays a significant role determining how reliable Spirituality subscale of the Turkish version of ANPS is. When the sample was composed of participants with university, masters and doctorate level of education, the scale yielded a good reliability. When high school graduates were added to this sample, reliability score dropped considerably. This indicated a poor reliability, suggesting that university level education was the minimum threshold for spirituality subscale to be reliable.

Although the methodological framework of this study does not allow empirical explanations regarding the relationship between education level and reliability of spirituality subscale, subjective observations suggest that some of the scale items might not be understood fully by the participants. Specifically, “feeling a oneness with all of the creation gives more meaning to my life” was the item which received the most feedback regarding its unclear content. What differentiates this item from the rest of the scale could be its relatively more abstract nature. An interesting and potentially related point was that among the 12 people who asked for a clarification, 11 people had an education level below university, whereas only 1 people had a university level of education. Such observations may point two

explanations with respect to the relationship between reliability of the scale and education level.

First, it is possible that the item did not make sense to those who have never experienced oneness with the universe. Such a speculation implies a positive correlation between formal education and spirituality so that those with low levels of education also have low levels of spirituality. However, given the presumably universal nature of spiritual experiences, formal schooling –which could be highly affected by the Zeitgeist of a particular time or region- is not very likely to be related to spirituality. Besides, to our knowledge, no empirical evidence supports the relationship between spiritual experiences and formal schooling.

Second and more likely, it can be speculated that the wording of the items did not meet the internal experiences of the person who indeed had spiritual experiences. In other words; it might be a matter of expressing, rather than experiencing spirituality. Given that formal schooling is positively correlated with verbal abilities (e.g. Ceci, 1991), items capturing immaterial and abstract nature of spiritual experiences might be hard to grasp for those with relatively less advanced verbal skills. For example, one might assert that defining an experience as “feeling a oneness with all of the creation” or as translated into Turkish “ evrenle bütün olmak (uniting with the universe)” is not very common in everyday language, and sounds more like jargon. Thus, the odds that people with higher education get acquaintance with this jargon could be higher.

To sum, the relation between reliability and education level might be due to the gap between the internal experiences and the expression of internal experiences: Some of the items in the scale, especially those capturing more abstract experiences, might not be corresponding to one's inner experiences or not ringing the same bell for different people.

Future research may shed light onto the dynamics that jeopardize the reliability of the scale, but for now it is safer to claim that education level distribution of the target sample should be considered before administering the Spirituality subscale of the Turkish version of ANPS. Given that people with university or of higher level education compose only around 12% of the general population in Turkey (TUIK, 2012), this subscale does not seem to have a wide applicability, as far as the findings of the current study are concerned. However, it should be noted that the sampling method of the study was not random, thus any generalization made out of this study should be considered with caution.

2. Spirituality, Age and Gender

No relation was between age and spirituality whereas in the Turkish standardization study, Özkarar-Gradwohl et al. (2014) found a positive relation between spirituality and age. However, the strength of the correlation in that study was rather negligible ($r(888) = .09, p < .05$). Although from an existential philosophical point of view, spirituality is

expected to increase with age since people growing older are more likely to go through life experiences prompting them to face death and search for existential meaning, it is not clear why the standardization study did not find a strong support and the current study failed to find a support at all. It should be noted that both studies are cross-sectional, rather than longitudinal in nature. Thus, some cohort effect might be playing a role. For example, the current study was conducted in a time period during which a public resistance took place against the planned demolition of Gezi Park¹ - one of the few remaining green spots in downtown İstanbul. The resistance quickly spread to a nation-wide protest against the ruling government. Protests were mainly organized and attended by the youth who emphasized peace, freedom, equality and solidarity in their mottos. One could suggest that such a social atmosphere could be both an expression of and a facilitator for spiritual growth especially among young adults. Although we do not have an empirical support for that, we could at least claim that potential cohort effects should be taken into consideration before arriving a conclusion regarding the relation between spirituality and age. Additionally, highly challenging life circumstances were also found to lead post-traumatic growth for some people regardless of age (Tedeschi & Calhoun, 2004). Future research may shed light on the factors affecting spirituality and possibly complicating the relation between spirituality and chronological age.

The study was in line with the Özkarakar-Gradwohl and colleagues' standardization study (2014) in finding a gender difference in spirituality such that women have higher spirituality scores compared to men. To explain this difference, some point out that women's socialization which stresses conflict resolution, gentleness and nurturance is congruent with spirituality (Francis, 1997), some propose that women's bodily experiences and natural rhythms -such as menstruation, pregnancy, birth, nursing- deepens women's understanding of the spiritual realms of life (Kanis, 2002). Some others refer to the idea that it is more acceptable for a woman to be inwardly oriented and express a number of emotions while men are expected to be action oriented (Fabes and Martin, 1991). However, it is still not clear that whether men and women express different stages of spirituality or the difference between scores reflect underlying definitions of spirituality and survey items appealing primarily to women. As Bryant (2007) suggests, it is possible that women tend to report that they are spiritual because they believe that these are properties they should endorse whereas men are more likely to hesitate to identify themselves in such a way due to the social pressures and expectations. Delving more deeply and qualitatively into what the concept of spirituality means to men and women is necessary to understand the difference between spirituality scores of males and females.

It will be appropriate to mention here, that contemporary philosopher Wilber's (1991, 2003) description of spirituality is somewhat

different than that of Panksepp et al. While items developed by Panksepp et al. (2003) measuring spirituality point to a sense of oneness with the universe and related emotions, Wilber's definition of spirituality refers to a sophisticated level of consciousness development where bodily and egoistic strivings and concerns have been included and transcended. Operationalizing the concept of spirituality as Panksepp, the fact that females scored higher than males becomes more plausible.

3. Interaction of Mortality Salience and Spirituality

It was hypothesized that there is an interaction effect of spirituality and mortality salience on judgments of moral transgressions so that the effects of mortality salience would be prominent among those with low levels of spirituality but not with high levels of spirituality. However, both regression and ANOVA analyses revealed no such interaction.

One possible factor to explain why such an interaction was not found could be that mortality salience versus dental pain prompts did not work as expected. As Pyszscneski and colleagues (1999) point out, in order for worldview defense to kick in, death thoughts should not be in the current focal attention but highly accessible. Building on this argument, one explanation regarding why prompts might not have worked as expected could be that death thoughts were still in the focus of awareness. Greenberg and colleagues (1996) found that when death related thoughts were kept in

focal attention after MS induction, participants did not show worldview defense, instead they engaged in more direct strategies of adjusting their perception to deny a short life expectancy. In the current study, the puzzle presented to participants as a distractor task might have failed to serve a sufficient delay function in order for death thoughts to be swept to periphery of consciousness. It might be due to the relatively short and rather easy nature of the puzzle, which might have failed to present the amount of time required for death thought suppression. Thus, death thoughts might still be in the picture at the time of measuring worldview defense.

Besides the possibility that the distractor task was inadequate in presenting enough amounts of time and distraction, some culture specific characteristics might be also have played a role in keeping death thoughts in the consciousness. Kökdemir and Yeniçeri (2010) claim that in Turkey the concept of death is not as hidden as much as it may be in the West. They pointed out different ways the mortality is kept close to consciousness: Visiting the graves of loved ones at bayrams (religious festivals), encountering the statement “Every soul shall taste death” at the entrances of cemeteries, visiting a person in grief during the mourning period which lasts 40 days, and commonality of conversations on death during this period contribute to the emphasis given to the inevitability of maintaining concept of death in consciousness. Moreover, heavy media coverage of deaths due to traffic accidents or homicide also may also play a role in having death as a daily reality. Then, one could argue, people from a culture where the

inevitability of mortality is an emphasized aspect of daily life would be more resilient toward the potential terror evoked by mortality. It could be reasoned that such people could tolerate keeping death thought in the consciousness for a more prolonged time before suppressing it. Thus, it is possible that during time of measuring worldview defense, people might have been actively thinking about death and keeping thoughts in the focus of consciousness.

On the other hand, presumably higher emphasis on inevitability of death in the given culture might be also enhancing the efficiency of suppression, making death related thoughts inaccessible at the time of measuring worldview defense. In other words, such culture specific characteristics might be paving way to a more prolonged and efficient suppression of death thoughts. To discuss this proposition further, it is worth to mention a study conducted by Kelly and Kahn (1994) in which participants were able to suppress intrusive thoughts without experiencing a rebound in accessibility. They suggested that people are able to develop more complex and effective suppression mechanisms when particular thoughts are well practiced. Then, the argument could similarly be made that if participants of the current study indeed face mortality related themes more frequently, then they also have more opportunity to practice and perform suppression without subsequent increase in accessibility of death related thoughts. If this is the case, then the inaccessibility of death thoughts

could contribute to the reason why mortality salience versus dental pain prompts might not have worked as expected.

To sum up, a possible reason for failing to find support for the main hypothesis of the study might be due to the prompts not working as expected. Building on Pyszscneski and colleagues (1999), it might be due to death thoughts being either in the center of awareness or highly inaccessible. Unfortunately, lack of proper measures assessing death thought accessibility makes it impossible to draw conclusive statements. Moreover, to our knowledge so far TMT research was done mostly in experimental settings whereas the current study is correlational. Non-experimental nature of the study further complicates the issue, since there was no control over possible confounding factors affecting death thought accessibility. For example, although participants were instructed to complete the questionnaire in the given order and in one administration – without having breaks-, it is not certain that 60% of all participants (who completed the questionnaire in take-home format) followed the instructions precisely.

To see whether the systematics of terror management works similarly in Turkey, future research may use different types of distractor tasks and implant death thought accessibility measures (e.g. word completion tasks as used in Greenberg et. al, 1997) in their protocols. Moreover, it is advisable to conduct studies in experimental manner in order

to be compatible with the research in the literature, enabling cross-cultural comparisons.

4. Spirituality and Moral Transgressions

The main focus of the current study was on the potentially moderator role of spirituality between mortality salience and judgments of moral transgressions, rather than the main effect of spirituality. However, a modest, albeit statistically significant relation found between spirituality and judgments of moral transgressions is worth to discuss. This positive correlation points that the more spiritual a person is, the more harshly she or he judges and punishes a moral transgression. Given that spirituality is defined in terms of transcending the individual ego and vignettes in the Moral Transgression Scale are composed of damages to the individual ego, then how come more spiritual people -who are presumable more liberated from the individual ego- judges a transgression –which targets the individual ego- more harshly? While literature consistently indicates a positive relation between spirituality and forgiveness (Davis, Worthington, Hook, & Hill, 2013), how could such a contrary finding be explained?

To respond these questions, it is fruitful and necessary to refer the ongoing debate regarding the conceptualization and operationalization of spirituality. The current study conceptualizes spirituality in a secular manner, aligning with other studies that do not equate spirituality to

religiosity (e.g. Paranjpe, 1988; Ho, 1995). The distinction between spirituality and religiosity has been made recently in academic circles with increasing secularization in Western culture (Zinnbauer, Pargament & Scott, 1999), however as Kapuscinski and Masters (2010) highlighted in their review of spirituality subscales, very limited number of studies directly examined what meanings are attached to the terms of religion and spirituality by non-academic lay people and no true lexical studies of spirituality have been conducted. Moreover, based on available work, some suggest that lay people tend to fail to endorse a significant distinction between these phenomena (Hill & Pargament, 2003). Following Kapuscinski and Masters' (2010) suggestions, it is crucial to take one step back from theory and directly ask non-experts what meanings they attach to the words "religiousness" and "spirituality" in order to figure out whether the proposed distinction between two concepts is a useful and applicable one which finds correspondence in reality and rings the same bell for the lay people. It might be asserted that such lexical studies are needed even more urgently in Turkey where spirituality research has just began to flourish.

If indeed spirituality is a distinct concept from religiosity, then the current study makes a good point in defining spirituality in a secular way; however such conceptualization does not guarantee that the way it is measured corresponds to the intended conceptualization. In fact, in Turkish version of Spirituality subscale, the word "maneviyat/manevi" is used for the word "spirituality/spiritual". As stated previously, "maneviyat/manevi"

is originally an Arabic word and Turkish Language Association (TDK) offers word “tinsellik/tinsel” to be used instead of “maneviyat/manevi”, however the usage of this term is mostly limited to philosophical/academic texts and far away from being prevalent in everyday language (TDK online dictionary, n.d.). That is why it makes sense to use “maneviyat” to stand for “spirituality”, but while it makes the items more comprehensible, it may bring its own pitfalls. Maneviyat is a term in Turkish language that potentially hosts religious sentiments. Although there is no available work to our knowledge that supports or defies the idea that maneviyat is inherently connected to religiosity in the minds of people, still it is a possibility that requires further inspection. As Kapuscinski and Masters (2010) highlights, if an item in a scale evokes an institutionalized religious connotation that does not necessarily overlap with spirituality, people who identify themselves as spiritual but not religious might be uncomfortable and obtain lower scores on measures inclusive religious language. Thus, one possible explanation regarding why higher spirituality is associated with harsher evaluations of transgressions could be related to underestimating the true spirituality level of those who stand off descriptions with religious connotations to define themselves, and overestimating the self-transcendence level of those for whom institutionalized religiousness is primary. In other words, those who got higher spirituality scores might be the ones with higher religious orientation but not the ones with higher self-transcendental levels.

Studies conducted on spirituality and forgiveness indicate that self-transcendence is consistently and positively correlated with forgiveness, whereas findings regarding the association between religiosity and forgiveness are inconsistent. Whereas some studies point out that religious people are among the most likely to discriminate against and harshly judge the perceived moral transgressions (Allport & Ross, 1967; Hunsberger & Jackson, 2005), others suggest that a small and positive association exists between religiosity and forgiveness (Tsang, McCullough, & Hoyt, 2005). In a recent study, Johnson and colleagues (2013) explain this discrepancy between studies by referring to different concepts of God. They point out that belief in an authoritarian God (controlling, commanding, punishing) was associated positively with more aggression toward a social transgressor and negatively with pro-social behaviors, whereas the reverse was true for those who internalized a benevolent God image (helping, forgiving, protecting). They could replicate the findings by experimentally prompting an authoritarian or benevolent God image. If in the current study items of Spirituality subscale were perceived in religious terms, then one might wonder whether an authoritarian God image or emphasis on authoritarian aspects of a religion moderated the relationship between the spirituality scores and judgments of moral transgressions. One could suggest that the study was conducted in a period during which socio-political milieu was perceived to be rather authoritarian and judgmental (Turkish Medical Association, 2014), besides its emphasis on religious sentiments. It could

be speculated that such a political and social atmosphere might prompt an association between religion and authoritarian values leading to more punitive attitude towards moral transgressions among people with higher spirituality scores (with higher religious orientation, if the items of Spirituality subscale were indeed evoked religious sentiments). An alternative explanation could be made based on Islam's collectivistic values. Given that Islam is a religion paying serious attention to the harmony in the society (Smither & Khorsandi, 2009), judging social transgressions harshly could be viewed as a way of protecting social harmony by condemning misfits.

On the other hand, one could view the relation between spirituality and harsher judgments of moral transgressions not a surprising but an expected one. Noting that there is one transgressor and a victim in MTS vignettes, it is possible that participants with higher spirituality approached the issue by siding with the victim in order to offer protection. In other words, their primary motive could be protection; rather than punishment. Correlation found between spirituality and care is also in line with this proposition. Moreover, from a Gestalt point of view, whole contains polarities. Following this idea, punitive and protective attempts might complement each other. Since participants were asked questions related to punishment, it is possible that the data obtained in the study captured only one side of the coin but actually represents both side. However, finding a positive relation between self-transcendental spirituality and harsher

evaluations of transgressions is in contradiction with the literature which consistently showed a positive relation between spirituality and forgiveness. One possible reason for the discrepancy could be related to the target of the transgression: In the forgiveness literature, it is mostly the participants themselves, whereas in the current study it is a hypothetical other in the target of a transgression. Moreover, considering Turkey's collectivistic culture, spiritual values might be inherently woven into collectivistic values that put emphasis on the others' wellbeing and social harmony for the participants of the current study. It is possible that more spiritual people get more reactive when others' wellbeing at stake and this response pattern could be more prevalent in cultures aligning to more collectivistic side. Future research may shed light onto possible moderator factors between spirituality and judgments of moral transgressions such as the target of the transgression and culture specific values.

5. Summary and Future Directions

The main hypothesis of the study that spirituality moderates mortality salience effects on worldview defense was not supported. It is suggested that prompts not working as expected might explain why the study failed in detecting an interaction effect. It is advised that future research may use different distractor tasks, implant death thought accessibility measures in their protocols and use designs that increase internal validity in order to

investigate the systematics of terror management theory in Turkey and enable cross-cultural comparisons.

Moreover, a positive relation was found between spirituality subscale scores and harsher evaluations of moral transgressions. The finding was discussed from two alternative perspectives.

From one point of view, it would be an unexpected finding given that spirituality is defined in terms of liberation from the individual ego and those with more self-transcendence would be expected to approach a transgression damaging the individual ego less harshly compared to those with lower self-transcendence (who are more clinging to the individual ego). To explain this contradiction, issues regarding conceptualization and operationalization of spirituality were discussed. Future research may follow an inductive approach by organizing focus groups and asking them to define what spirituality and religiosity is and in which terms they are expressed.

From another point of view, it would not be an unexpected finding when harsher judgments are interpreted as expressions of a motivation toward protecting the victim and restore social harmony. In future, research may investigate the possible moderators between spirituality and judgments of moral transgressions, by -for example- focusing on the target person of transgression and possible cultural differences in collectivism-individualism spectrum.

Qualitative and bottom-up studies contributing to the conceptualization of spirituality seems even more urgent in Turkey, given that language used to stand for spirituality might be including an unintended religious connotation. Considering that the reliability of the Spirituality subscale was unacceptably low for those with an education level below university, information obtained from such focus groups may pave way to designing assessment tools that are more compatible with the internal experiences. Moreover, such studies also have the potential to shed light onto potentially different spiritual dimensions relevant to genders, contributing to the development of more sensitive measurement methods. Once we make sure that we have sound ways to capture spirituality empirically, then we can investigate more reliably what functions spirituality plays in mortality salience effects.

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APPENDICES

APPENDIX A

Cover Page and Background Information Form

Sayın Katılımcı,

Doldurmak üzere olduğunuz anket İstanbul Bilgi Üniversitesi Klinik Psikoloji Yüksek Lisans programı öğrencisi Psikolog Ecem Çoban'ın tez araştırmasında kullanılmak üzere veri toplama amacı ile uygulanmaktadır.

Anket tamamen isimsiz doldurulacaktır.

Bu anket, kişilik özelliklerini anlamaya yönelik yakın zamanda geliştirilmiş bir anketi test etmeyi amaçlamaktadır. Anketi doldurmak yaklaşık 30 dakika sürmektedir. Lütfen bütün soruları sayfa atlamadan ve verilen sırada yanıtlayınız.

Araştırma ile ilgili her türlü soru ve görüşlerinizi Psikolog Ecem Çoban'a (eccoban@yahoo.com) iletebilirsiniz.

Anketi doldurduğunuz takdirde verdiğiniz cevapların gizlilik ve isimsizlik ilkesine uygun olarak bilimsel amaç ile kullanılmasına izin verdiğinizizi kabul etmiş oluyorsunuz.

Katılımınız için şimdiden teşekkür ederiz.

Cinsiyet:	1. ☐ Kadın	2. ☐ Erkek
Yaş:	_____	
Eğitim Düzeyi:	(öğrenci iseniz okuduğunuz seviyeyi belirtiniz)	
	1. ☐ İlköğretim	2. ☐ Lise
	3. ☐ Üniversite	4. ☐ Yüksek Lisans
	5. ☐ Doktora	
Meslek:	1. ☐ Öğrenci	2. ☐ Çalışıyor
İşsiz	3. ☐	
	4. ☐ Ev hanımı	5. ☐ Emekli
Medeni Hali:	1. ☐ Bekar	2. ☐ Evli
	3. ☐ Boşanmış	4. ☐ Dul

Halen tanısı konmuş ve tedavi görmekte olan kronik (süreğen) bedensel bir hastalığınız var mı?

1. ☐ Yok 2. ☐ Var (Varsa lütfen ad(lar)ını belirtiniz _____)

1. derece akrabalarınızda (anne, baba, çocuk) halen tanısı konmuş ve tedavi görmekte olan kronik (süreğen) bedensel bir hastalığı olan var mı?

1. ☐ Yok 2. ☐ Var (Varsa lütfen ad(lar)ını belirtiniz _____)

APPENDIX B

The Turkish Version of Affective Neuroscience Personality Scale (ANPS)

Seçtiğiniz rakamı lütfen (○) şekilde yuvarlak içine alın ve her madde için tek şıkkı işaretleyin.

Anahtar:

1. Kesinlikle katılıyorum
2. Katılıyorum
3. Katılmıyorum
4. Kesinlikle katılmıyorum

1. Hemen hemen her küçük problem veya bilinmeyen ilgimi çeker.
2. Beni iyi tanıyanlar benim kaygılı bir insan olduğumu söyleyebilirler.
3. Başkalarıyla ilgilenmek ve onlara bakmak için genellikle güçlü bir ihtiyaç hissedirim.
4. Engellendiğimde çoğunlukla kızgın olurum.
5. Kolayca eğlendirilebilen ve bolca gülen biriyim.
6. Çoğu zaman kendimi üzgün hissedirim.
7. Evrenle bir bütün olduğumu hissetmek hayatıma daha fazla anlam katar.
8. Hislerim ve duygularımın farkında olmak için çaba gösteririm.
9. Özel olayları beklemekten fazla zevk almam.
10. Çoğu zaman karar vermekte zorlanmam.
11. Bazı insanların yavru hayvanlara karşı sergiledikleri abartılı tutumları çok saçma buluyorum.
12. Eğer istediğimi elde etmekte engellenmişsem genellikle durumu olduğu gibi kabullenirim.
13. Arkadaşlarım beni muhtemelen çok ciddi biri olarak tanımlarlar.
14. Birçok insana kıyasla reddedilmekten daha az etkilenirim.
15. Hayatımın anlamı diğer canlılarla bağlantımın olduğunu hissetmekten kaynaklanmaz.
16. Zaman zaman az da olsa dedikodu yaparım.
17. Yeni deneyimleri yaşamayı beklemekten gerçekten keyif alırım .
18. Çoğunlukla, fırsat kaçtıktan sonra nasıl yakalayabilirdim diye düşünürüm.
19. Çocuklarla ilgilenmek, onlara bakmak hoşuma gidiyor.
20. Arkadaşlarım beni muhtemelen fevri (çabuk sinirlenen) biri olarak tanımlarlar.
21. Yapılan işi eğlenceli hale getiren biri olarak bilinirim.
22. Çoğu zaman ağlama isteği duyuyorum.
23. Genelde, yaradılışın güzelliğinden manevi bir haz alırım.
24. Müzik dinlerken bazen kendimi o kadar kaptırırm ki etrafımda olan biteni fark etmem bile.
25. Ulaşılamayacak büyük planlar yerine pratik hedefler seçmeyi tercih ederim.
26. Kendimi bir savaşçı olarak tanımlamam.
27. Hasta bir insana bakmak bana yük olur.

28. Bir şeyleri kırmak isteyecek kadar kızgın olduğum bir zaman hatırlayamıyorum.
29. İtiş kakış içeren sert oyunlar genellikle hoşuma gitmez.
30. Birçok insana kıyasla daha az üzgün hissediyorum.
31. Önemli zorlukların üstesinden gelmek için nadiren maneviyata sığınırım.
32. Her zaman doğruyu söylerim.
33. Cevabı aramak ..zümü bulmak kadar zevklidir.
34. Çoğu zaman, kendimi dışarıdakilerin farkettiğinden daha gergin hissederim.
35. Yavru hayvanların yanında olmayı severim.
36. Kızdığımda çoğu zaman içimden küfretmek gelir.
37. Genellikle iyi zamanları düşünür, mutlu olurum.
38. Çoğunlukla yalnız hissederim.
39. Bütün canlılarla bir olduğumu hissetmek benim için önemli bir ilham kaynağıdır.
40. Sabun köpüğündeki renkler gibi küçük şeylerden keyif almak hoşuma gider.
41. Genellikle, hedeflerim hakkında az hevesli ve az beklentili olurum.
42. Hayatta çok az sayıda korkum vardır.
43. Çocukların etrafında olmaktan özellikle bir keyif almam.
44. Engellendiğimde nadiren sinirlenirim.
45. Saçmalığa varan esprilerden hoşlanmam.
46. Aileme çok bağlıyım.
47. Benim için maneviyat içsel huzur ve uyumu sağlayan öncelikli bir kaynak değildir.
48. Bazen içimden küfretmek gelir.
49. Bir amaç uğruna çaba sarf etmek ve sonucunu beklemekten o amaca ulaşmak kadar zevk alırım.
50. Bazen sorunlarım hakkında kaygılanmaktan kendimi alamam.
51. Genellikle başı boş kalmış hayvanlara karşı yufka yürekliyim.
52. Biri beni kızdırdığında uzun süre etkisinde kalırım.
53. Beni tanıyanlar benim eğlenceyi seven biri olduğumu söylerler.
54. Çoğu zaman, sevmiş olduğum, artık yanımda olmayan insanlar hakkında düşünürüm.
55. Manevi konular üstünde yoğunlaşmak genellikle içimde gü.lü bir hayranlık (duygu seli) ve imkanların sonsuzluğu hissini uyandırır.
56. Kendimi hiç şiir yazarak ifade etmeyi denemedim.
57. Genellikle sadece ..zmüş olmak için problem veya bilinmeyenleri çözmekle ilgilenmem.
58. Arkadaşlarım benim cesur olduğumu ve beni korkutmanın zor olduğunu söyler.
59. Genelde evde hayvan beslemenin, değdiğinden daha fazla sorun çıkardığını düşünürüm.

60. Beni iyi tanıyanlar benim neredeyse hiç kızmadığımı söyler.
61. Şakalaşmaktan özellikle bir keyif duymam.
62. Arkadaşlarımın veya ailemin beni onaylamaması beni özellikle üzmez.
63. Hayatımın anlam ve amacını manevi değerlerim belirlemez.
64. Bir şeyden kaçmak için hiç hasta rolü yapmadım.
65. Meraklılığım beni bazen başkalarının boşa harcanan zaman olarak nitelendirdiği şeyleri yapmaya iter.
66. Çoğu zaman gelecek hakkında kaygılanırım.
67. Evsizler için üzülürüm.
68. Birisi yapmak istediğim şeyi yapmama engel olmaya çalışırsa rahatsız olurum.
69. Çoğu zaman mutluluk duyarım.
70. Sık sık sevdiğim kişileri kaybettiğimi düşünürüm.
71. İnsanlığın bir parçası olduğumu hissetmek beni daha etik seçimler yapmaya iter.
72. Şiirsel bir dil veya süslü hitap beni özellikle etkilemez.
73. Çıkıp yeni şeyler keşfetme ihtiyacını nadiren duyarım.
74. Bende kaygı uyandıran çok az şey vardır.
75. Başkalarının bana ihtiyaç duyduğunu hissetmek hoşuma gitmez.
76. Birisine vurmayı isteyecek kadar nadiren kızarım.
77. Bir çok insanın komik bulduğu şeyler genelde bana komik gelmez.
78. Arkadaşlarımdan uzağa gitmek beni üzmez.
79. Koyduğum hedefler manevi değerlerimden etkilenmez.
80. Hayatımda karanlıktan korktuğum zamanlar olmuştur.
81. Yeni bir ortama girdiğimde, hep etrafımı incelemekten ve daha iyi tanımaktan hoşlanırım.
82. Çoğunlukla “Doğru kararı veriyor muyum?” diye kaygılanırım.
83. Sık sık başkalarını iyi hissettirecek ufak tefek şeyler yaparım.
84. Olaylar istediğim gibi gelişmeyince bazen içimden bir şeylere tekme atmak veya vurmak gelir.
85. Fiziksel temas içerenler dahil her türlü oyundan zevk alırım.
86. Arkadaşlarımla olamadığım zamanlar çoğunlukla sıkın ve bunalmış hissederim.
87. Manevi değerler sınırlarımı aşmama yardımcı olur.
88. Bir film ya da benzeri bir şey izlerken kendimi o kadar kaptırıyorum ki sanki onun bir parçasıymışım gibi hissediyorum.
89. Sorunları irdeleyip inceleyen biri değilim.
90. Geleceğim hakkında nadiren endişelenirim.
91. İnsanların benimle duygusal yakınlık kurmalarını özellikle istemem
92. Birine bağırarak isteyecek kadar kızgın hale genellikle hiç gelmem.
93. Sadece eğlencesi için oynanan ve açık bir kazananı olmayan

- oyunlardan daha az zevk alırım.
94. Kaybettiğim insanları ve ilişkileri nadiren düşünürüm.
95. “İnsanlara, onların istediği gibi davran” sözü benim hayat görüşüme uymaz.
96. Kasten hiç yalan söylemedim.
97. Çoğu zaman sanki her şeyi başarabilmişim gibi hissederim.
98. Çoğu zaman sinirli hissederim ve gevşemekte güçlük çekerim.
99. Başkalarının kayıplarının acılarını çok güçlü bir şekilde hissedebilen bir insanım.
100. Bazen, insanların çevirdiği dolambaçlı işler gerçekten sinirlerime dokunur.
101. Hayatı, eğlenmek için fırsatlarla dolu olarak görürüm.
102. Hüznü ve kayıp acısını güçlü hissedenden biriyim.
103. Bazen müzik dinlerken tüylerim diken diken olur, ürperirim.
104. Çoğu zaman hayat anlamsız gelir.
105. Aşırı derecede ırdeleyici (araştırmacı) biri değilim.
106. Genellikle birşeyler hakkında kaygılanmaktan dolayı uykusuzluk çekmem.
107. Pek şefkatli değilim.
108. İnsanlar beni sinirlendirdiğinde onlara kötü şeyler söyleme ihtiyacını nadiren duyarım.
109. Başkalarıyla birlikte oyunlar oynamak benim için özellikle keyif veren bir şey değildir.
110. Başkalarıyla iletişim kurmaktan hemen hemen her zaman mutlu olurum.

APPENDIX C

Mortality Salience versus Dental Pain Prompt

Mortality Salience Prompt:

I. Kendi ölümünüzü düşündüğünüzde hissettiklerinizi kısaca tanımlayınız.

II. Fiziksel olarak ölürken size ne olacağını düşündüğünüzü kısa ve öz bir şekilde yazınız.

Dental Pain Prompt:

I. Dişinizin ağrıdığını düşündüğünüzde hissettiklerinizi kısaca tanımlayınız

II. Dişiniz ağrıyorken size ne olacağını düşündüğünüzü kısa ve öz bir şekilde yazınız.

APPENDIX D

DELAY TASK

Aşağıda rastgele verilmiş harflerin içinde soldan sağa ve yukarıdan aşağıya doğru Türkiye'nin 4 şehrinin isimleri gizlenmiştir. Anahtar kelimelerden faydalanarak saklanmış kelimeleri bulup üstlerini çiziniz.

Anahtar Kelimeler:

Soldan sağa:

Edirne

Sinop

Yukarıdan aşağıya:

Manisa

Ağrı

Ç	O	Y	Y	E	Ğ	M
E	D	İ	R	N	E	A
E	P	A	Y	O	E	N
S	C	Ğ	V	T	Ö	İ
E	Ü	R	Z	A	T	S
D	R	I	Ç	R	A	A
İ	S	İ	N	O	P	İ

APPENDIX E
MORAL TRANSGRESSION SCALE (MTS)

Lütfen aşağıdaki hikayeleri dikkatlice okuyunuz ve hikayelerde sözü edilen ihlallerle ilgili iki soruya sizin için uygun olan sayıyı yuvarlak içine alarak cevap veriniz.

I. Sizce bu ihlal ne kadar ciddi bir ihlaldir?

1	2	3	4	5	6	7
(Hiç ciddi bir ihlal değildir)			(Aşırı derece ciddi bir ihlaldir)			

II. Bu kusuru işleyen ne ölçüde cezalandırılmalı?

1	2	3	4	5	6	7
(Çok hafif bir ceza ile)			(Çok ağır bir ceza ile)			

1. Ünlü heykeltıraşın başeseri, tamamlanmasına ve sergilenmesine bir hafta kala kızgın bir hırsız tarafından parçalandı. Çalacak bir şey bulamayıp hayal kırıklığına uğrayan hırsız, heykeltıraşın gözlerinin önünde heykeli bağladı ve seramik heykel paramparça olana kadar çekiçle vurdu. Şaşkına dönen heykeltıraş “On dokuz yıllık emeğim, yeteneğimin en iyi ürünü moloz yığınınına döndü” dedi.

2. Yetenekli piyanistin parmakları kendisine ihanet etti; yumuşak çalışı, tuşlara özgün dokunuşu, tanıdık hüneri artık görülmüyor ya da duyulmuyor... Genç dâhinin kazadan sonraki ilk konseri gösterdi ki, kırmızı ışıktaki geçerek kendisine çarpan genç kız, piyanistin bedenine hafif

kariyerine ise ağır bir zarar vermişti.

3. Bir doktor soyadları aynı iki hastanın kayıtlarını karıştırdı ve yanlış hastanın bacağına kesti. Şaşkınlıkla bacağının olması gereken yere bakan kadın “Dizimden basit bir operasyon için anesteziyle uyutuldum ve uyandığımda bir bacağım yoktu. Bacağımın olmadığına inanamıyorum” dedi.

4. Duruşmanın sonunda hakim şu karara vardı: “Kıdemli doktorun genç kadının rahmini almaya dönük kararı kibrinden ve kısmi bilgi kullanmasından kaynaklanmaktadır”. Genç kadın mahkeme salonundan ayrılırken “Bir daha asla tam olamayacağım. 3 çocuğum var ve daha fazlasına niyetim yoktu; ancak yine de kimliğimin çok önemli bir parçası sonsuza dek kayboldu. Bunu telafi edebilecek bir şey var mı?” dedi.

5. Hatalı ilaç gencin bacağının kesilmesine mal oldu. Bir ilaç şirketi, ekonomik gerekçelerle, kusurlu olan ilacını yok etmek yerine piyasaya sürdü. Bu durum diyabete yakalanan ve bacağı kesilmek durumunda kalan çocuğun doktoru tarafından afişe edildi: “Her şeyi denedik ama iki hafta içinde durumu daha da kötüleşti... Bu kadar köklü bir şirketin ilacının böyle bir duruma sebep olacağı kimin aklına gelirdi? Bir yetişkinin bacağımı kesmek yeterince zorken, hele bir de söz konusu bir çocuk olunca...”

6. “Dehşet verici bir boşluk etrafımı sarıyor, çocukluk anılarım, rahmetli anne babamın hatıraları, şarkılar, sevdiklerim... tüm geçmişim sanki hiç olmamış gibi silindi.” Bu duygusal sözler trafik kazasında yaralanan genç bir erkek tarafından söylendi. Sözü edilen kazada, ticari bir araç gencin aracını çok kısa mesafeden takip etmiş ve çarpmıştı. Kazanın etkisiyle kafasına aldığı darbe gencin hafızasının silinmesine neden oldu.

7. Gelecek vadeden opera sanatçısının ses tellerindeki nodülün alınması için yapılan ihmalkar müdahale kalıcı ses kısıklığına yol açtı. Kadın sanatçı müzik geleceğini kaybettiğini söyleyerek cerraha dava açtı. Sanatçı ifadesinde şunları söyledi: “Konuşabilirim; duşta bir de belki arkadaşlar arasında şarkı söyleyebilirim; ama çocukluğumdan beri opera sanatçısı olmak istedim. Yeteneğim ve uygun sesim vardı; ancak şimdi hepsi gitti.”

8. Genç bilim adamı tarafından geliştirilen devrim niteliğindeki bilgisayar programı çalındı. Benzer bir program, kısa bir zaman sonra büyük bir şirket

tarafından piyasaya sürüldü. “Bu program mesleki geleceğimin anahtarıydı” diyen genç bilim adamı sözlerine şöyle devam etti: “Bu piyasa hızlı, vahşi ve pek çok yetenekli insanı barındırıyor. Özgün bir şey icat etme fırsatı oldukça nadir bulunuyor. Bir daha böyle çılgır açıcı bir şey üretme şansımın olacağından şüpheliyim”

9. Öğrencilere ihtiyaç bursu veren fonun yöneticisi fondaki paraları da alarak yurt dışına kaçtı. Öğrenci temsilcisi “bizim geleceğimizi de alarak kaçtı; başka bir kaynağımız olmadığı için hiçbirimiz öğrenimimize devam edebilecek durumda değiliz. Akademik başarımız, içinde bulunduğumuz şartlardan bir çıkış yolu olacaktı, şimdi ise kapı kapandı. Gerçeklik hayallerimizi belki de sonsuza dek kapı dışarı etti” dedi.

10. Çimento fabrikasının sahibi bir gencin görme yetisini kaybetmesine sebep olduğu gerekçesiyle dava edildi. Fabrika sahibi 15 yıl önce fabrikanın bacasına yeni filtreler taktıracağına söz vermişti; ancak ekonomik sebeplerden ötürü bu gerçekleşmedi. Tüm hayatı boyunca fabrikanın yanında yaşamış olan genç, “Onların aç gözlülüğü benim sağlığıma mal oldu; miktarı ne olursa olsun hiçbir maddi tazminat benim kaybımı karşılayamaz” dedi.

APPENDIX F

Cronbach's Coefficients of & Intercorrelations among Subscales of ANPS

Table F1

Descriptive Statistics, Intercorrelations, and Scale Reliabilities of Subscales of Turkish ANPS (all education levels included, N=204)

Subscale	1	2	3	4	5	6	7
1. Spirituality	-						
2. Seek	.089	-					
3. Fear	.021	.069	-				
4. Care	.389**	.241**	.179*	-			
5. Anger	-.067	.291**	.302**	.020	-		
6. Play	.104	.330**	.054	.282**	.102	-	
7. Sadness	.011	-.008	.544**	.157*	.259**	-.068	-
α	.508	.621	.631	.686	.720	.646	.508
α^+	.78	.56	.70	.72	.73	.70	.55
<i>M</i>	20.78	25.54	21.47	26.79	24.45	22.79	20.10
<i>SD</i>	5.56	4.01	4.39	4.84	5.09	4.43	3.81

* $p < .05$ ** $p < .01$

note. α^+ Cronback's alpha score obtained in the original reliability study of the Turkish Version of ANPS (Özkarar-Gradwohl et al., 2014).

Table F2

Descriptive Statistics, Intercorrelations, and Scale Reliabilities of Subscales of Turkish ANPS (only university, masters and doctorate level of education included, N=102)

Trait measure	1	2	3	4	5	6	7
1. Spirituality	-						
2. Seek	.048	-					
3. Fear	-.116	-.068	-				
4. Care	.368**	.027	.031	-			
5. Anger	-.116	.195*	.151	-.208*	-		
6. Play	.137	.166	.069	.228*	-.020*	-	
7. Sadness	-.068	-.0118	.436**	.109	.090	-.113	-
α	.769	.612	.653	.691	.714	.618	.467
α^+	.78	.56	.70	.72	.73	.70	.55
<i>M</i>	20.70	25.78	20.65	26.46	23.82	23.29	18.99
<i>SD</i>	5.02	3.94	4.46	4.86	5.09	4.15	3.44

*p<.05 **p<.01

note. α^+ Cronback's alpha score obtained in the original reliability study of the Turkish Version of ANPS (Özkarar-Gradwohl et al., 2014).