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## THE AWESOMENESS OF AWE: THE ROLE OF AWE IN INCREASING CONSUMER WELL-BEING

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**THE AWESOMENESS OF AWE: THE ROLE OF AWE IN INCREASING CONSUMER WELL-  
BEING**

A Dissertation Presented

by

BEGUM OZ

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2019

Isenberg School of Management

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## **DEDICATION**

I dedicate this dissertation to my parents, my husband and my precious baby Lisa.

## **ACKNOWLEDGMENTS**

I am eternally grateful to the amazing people who have helped me in this journey. Starting my Ph.D. at UMASS was one of the best decisions I have ever made in my life. I always felt so lucky and thankful for being a part of this community. Now it is time for farewell, and I have a new journey ahead which excites me very much from every aspect, but specifically, I know that I will share the UMASS culture proudly until the end of my career.

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## **ABSTRACT**

THE AWESOMENESS OF AWE: THE ROLE OF AWE IN INCREASING CONSUMER WELL-  
BEING

MAY 2019

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Emotions are a driving force in much of consumer behavior. Yet the breadth of emotions and their effects on consumption are only beginning to be discovered. One emotion, which has been understudied within consumer behavior, but has properties that suggest it could play an important role in improving consumer well-being, is awe. In this dissertation, I explore effects of awe on consumers' materialist values, morality and lying behavior, and pro-environmental behavior.

Essay 1 examines the role of awe in consumers' materialist values and their product choices. Findings from three experiments support that awe decreases consumers' materialist values and leads to an increased desire for experiential goods over material ones. My analysis also suggests that feeling of small self (diminished self) mediates the relationship between awe and consumers' product choices.

Essay 2 examines the role of awe in consumers' morality and lying behavior. Results from four studies reveal that awe plays an important role in making consumers'



moral identity accessible, encouraging consumers' desire to engage in moral behavior through small self and triggered moral identity, and may lead to an increased propensity to engage in prosocial lying.

Essay 3 explores the role of awe in consumers' pro-environmental behavior. Results from three studies suggest that consumers that feel awe are more likely to have higher pro-environmental attitudes and increased willingness to engage in pro-environmental behavior. Additionally, in Study 3, I investigate the effects of different sources of awe which shows that the induction of awe of nature and awe of God led consumers to engage in pro-environmental behavior but not the induction of awe from man-made wonders.

In doing so, this dissertation extends the awe literature in consumer research. In addition, this dissertation contributes to the literature on materialistic consumption by introducing a novel emotion, awe, that reduces consumers' materialist values. This dissertation also contributes to morality and lying behavior research by showing the effect of a unique emotion in triggering consumers' morality. Lastly, this dissertation contributes to pro-environmental behavior literature by presenting the positive role of awe in increasing consumers' pro-environmental attitudes and behavior. Implications for practice are also discussed.

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## CHAPTER 1

### INTRODUCTION TO AWE

“The most beautiful thing we can experience is the mysterious. It is the source of all true art and science. He to whom the emotion is a stranger, who can no longer pause to wonder and stand wrapped in awe, is as good as dead – his eyes are closed.”

-Albert Einstein

#### 1.1 Brief Overview of Awe

Emotions are driving forces in much of consumer behavior. Yet the breadth of emotions and their effects on consumption are only beginning to be discovered. One emotion, which has been understudied within consumer behavior, but which has properties that suggest it could play an important role in improving consumer well-being, is awe. Awe is a positive emotion that is very common in our lives. It is possible to feel awe from various different sources like nature, beauty or man-made wonders (Gregoire 2014). Even though there have been many awestruck moments in our lives, the study of awe as a distinct emotion is relatively new. Three factors contribute to why researchers have been slow to study this emotion. First, prior research has opposing views regarding whether to view awe as a distinct emotion or not (Williams et al. 2018). Second, research regarding discrete emotions has largely focused on differentiating the effects of negative emotions, while treating positive emotions similarly, usually focusing on happiness as the classic exemplar to study (Williams et al. 2018). Third, since the elicitors of awe are so diverse and the function of this emotion used to be unclear



(Shiota et al. 2007), it has taken a long time for researchers to study awe as a distinct emotion (Lazarus 1991).

Keltner and Haidt (2003) were the first to study awe as a distinct emotion. They identified awe as a “moral, spiritual, and aesthetic” emotion (p. 297). Building on this work, later studies have started to show the positive effects of this emotion on individuals’ well-being and quality of life (e.g. Rudd et al. 2012). Experiences of awe have positive impact both on individuals’ physical and psychological well-being (Keltner and Haidt 2003). For instance, research shows that experiencing awe reduces people’s pro-inflammatory cytokines which might cause heart disease, Alzheimer’s, arthritis and other immune conditions (Stellar et al. 2017). Regarding the psychological benefits, feelings of awe adjust individuals’ perception of time and makes them feel like they have more time available in this world which results in more patience and increased life satisfaction (Rudd et al. 2012). In addition, awe makes individuals feel more connected to nature, to the environment and increases their senses of caring and sharing (Piff et al. 2015). Awe is also regarded as a collective emotion since it encourages feeling of oneness with others (Van Cappellen and Saroglou 2012). Consistent with the enhanced collective identity, feelings of awe increase individuals’ prosocial behavior and encourage them to be an effective member of the society (Piff et al. 2015). Additionally, awe boosts individuals’ creativity and rejuvenates individuals’ brains (Atchley et al. 2012).

Given the positive effects of awe on individuals, in this dissertation, I propose that awe can play an important role in increasing consumer well-being. Specifically, I explore the effects of awe on consumers' materialist values, morality and lying behavior, and pro-environmental behavior. In doing so, this dissertation extends the awe literature in consumer research and also identifies new interventions aiming to improve consumer well-being.

In the rest of this chapter, first I define awe and provide a brief overview of the literature on awe which is mostly from the field of psychology since consumer behavior research has only very recently begun to study awe. Then I discuss the contributions of this dissertation and provide an overview for the following chapters.

## **1.2 Definition of Awe and Overview of Relevant Research**

Awe is a positive emotion that may be considered as unexplored and mysterious in comparison to the rest of other emotions. Awe has been defined as “an emotional response to perceptually vast stimuli that defy one’s accustomed frame of reference in some domain” (Piff et al. 2015, p.883). Feelings of awe are typically elicited during religious or spiritual experiences (Keltner and Haidt 2003), experiences with nature (e.g. glorious sunsets or sky; Shiota et al. 2007), experiences of great works of art (e.g. sculpture), music (Piff et al. 2015) or experiences of childbirth (Van Cappellen and Saroglou 2012).

Although recent research on awe can be traced to Keltner and Haidt's (2003) ground-breaking paper, traces of studying an awe-like aesthetic emotion can go back to the eighteenth century. The Irish philosopher Edmund Burke (1757/1990) studies and defines 'sublime' as "the feeling of expanded thought and greatness of mind that is produced by the literature, poetry, painting, and viewing landscapes" (Keltner and Haidt 2003, p. 300). His studies advance research on sublime feelings since he suggests many other states that could have close relationships with sublime experiences such as beauty, admiration, astonishment, reverence and respect (Keltner and Haidt 2003). After Burke, there had been studies related to feelings of awe, however they presented contradictory findings. For instance, Ekman (1992) suggests that awe can be considered as a distinct emotion, whereas Lazarus (1991) describes awe as an ambiguous state which may be positive or negative depending on the context. Finally, building on Burke's research, Keltner and Haidt (2003) propose a prototype approach to awe and its related states. Starting with this research, awe has been regarded and started to be studied as a discrete emotion.

Keltner and Haidt (2003) suggest two central appraisals of awe, perceived vastness and need for accommodation, along with five additional appraisals: threat, beauty, exceptional ability, virtue and the supernatural. The authors derive these appraisals from a very detailed review of what has been written about awe in religion, philosophy, sociology and psychology. The two central appraisals of awe play an important role in understanding possible effects of awe on individuals. The first appraisal, vastness, refers to anything that can be perceived as vast, specifically "any

stimulus that challenges one's accustomed frame of reference in some dimension" (Shiota et al. 2007, p. 945). For instance, vastness can refer both to a physical or a social size. While a huge sculpture can represent vastness in physical size, a charismatic leader can represent social vastness through his/her power, authority or prestige (Keltner and Haidt 2003; Piff et al. 2013). Need for accommodation is the second central appraisal of awe. When individuals come across something that is beyond their existing schemas, people try to update or create new schemas aiming to understand and make sense of the current moment (Shiota et al. 2007). Thus, these two central appraisals play an important role in identifying the source and the effects of awe.

Building on Keltner and Haidt (2003), Shiota and colleagues (2007) found that feelings of awe lead people to define themselves by using universal terms such as 'an inhabitant of the Earth' rather than using individuated terms such as 'special'. This finding presents the self-diminishing nature of awe which is also referred to as 'small self' (Piff et al. 2015). Individuals experiencing awe have increased levels of small self that shifts their focus from themselves and their self-concerns to nature and to other people around them (Shiota et al. 2007; Piff et al. 2015). Building on this finding, Piff et al. (2015) studied the power of small self on individuals' generosity and prosocial behavior. Their findings suggest that awe promotes selfless and other-oriented behaviors resulting in an increased generosity and enhanced prosocial behaviors. In addition to that, recently, Stellar and colleagues (2017) found that feelings of awe promote greater humility through feelings of small self which counter selfish behaviors.

The work of Rudd et al. (2012) introduces a different positive power of awe which is expanding individuals' time perceptions, increasing their patience and life satisfaction as well as adjusting individuals' time perception which accordingly increases people's preferences towards experiences over material products. Their findings present unique positive effects of awe on individuals. Other than that, building on awe research from psychology, Williams et al. (2018) study the impact of awe and pride on consumer self-brand connections. Their results suggest that feelings of awe increase consumer attachment to social-benefits brands (brands that are helping others) whereas feelings of pride increase consumer attachment to luxury brands (brands that improve one's own social standing). The authors also found that awe's role in increased attachment to social-benefits brands is explained by feelings of a diminished sense of self.

Overall, awe has started to be regarded as a distinct and powerful emotion and the majority of the previous research mentioned above shows the positive role of awe in people's minds, lifestyle and behaviors. Given these qualities, this unique emotion presents exciting research opportunities in the field of consumer research. In particular, in this dissertation, I focus on awe's power to increase consumer well-being.

### **1.3 Contributions**

The main purpose of this dissertation is to understand the role of awe in improving consumer well-being through reducing their negative consumption practices and increasing positive ones. Although recent research shows that feelings of awe have

various positive influences in one's life (e.g. Shiota et al. 2007; Rudd et al. 2012; Piff et al. 2015), little research in consumer behavior has focused on the effects of awe on consumption experiences (Williams et al. 2018).

Research aiming to improve consumers' well-being through reducing negative consumption practices in the marketplace has been an area of interest for a long time (e.g. Chaplin et al. 2014; Choi and Winterich 2013). Finding ways to enhance consumers' well-being presents important theoretical, managerial and policy implications. However, when it comes to looking at the role of discrete emotions in preventing consumers' negative experiences and increasing positive ones, the literature has little to say. The majority of research focuses on the role of positive and negative emotions instead of analyzing the role of discrete emotions in consumption practices. However, positive emotions are "like a box of chocolates" and might have different effects on consumption behavior (Griskevicius et al. 2010). To date, little attention has been given to possible different effects of positive emotions on consumption behavior (e.g. Cavanaugh et al. 2015). This dissertation aims to address this gap. Building on the Appraisal Tendency Framework (ATF; Han et al. 2007), since emotions may have different specific effects on consumer judgments and choices, this dissertation explores the role of awe in consumption experiences.

Essay 1 (Chapter 2) studies the role of awe in consumers' materialist values and product choices. Specifically, the results from three studies show that awe successfully reduces consumers' materialist values. Additionally, this research shows that awe plays an important role in influencing consumers' product choices by increasing consumers'

desires to prefer experiences over material possessions. This research also tests the underlying mechanisms of this relation and suggests that the impact of awe on consumers' preferences for experiences over material possessions is driven by awe's ability to elicit feelings of "small self". The findings of this research contribute to the literature on materialistic consumption and product choices by introducing a powerful emotion that has the capability to reduce consumers' materialist values.

Essay 2 (Chapter 3) extends the awe literature in consumer research by presenting the role of awe in consumers' morality and prosocial lying behavior. The results across four studies suggest that awe plays an important role in making consumers' moral identity accessible and encouraging consumers' desires to engage in moral behavior. Ironically, since awe triggers one's collective identity and desire to engage in prosocial behavior (Piff et al. 2015), the results also show that feelings of awe may lead to an increased propensity to engage in prosocial lying in order to show greater care for others. Since anti-social lying has many negative outcomes (i.e., financial: tax revenues; social: lower well-being of consumers), this paper contributes to the morality in the marketplace literature by providing new remedies for increasing morality.

Essay 3 (Chapter 4) studies the role of awe in increasing consumers' pro-environmental attitudes and behavior. Although research has widely investigated the effects of consumption practices on pro-environmental behavior and attitudes, one area that has been given less attention is the role of emotions in motivating consumers' desire to engage in pro-environmental behavior. The results across three studies

suggest that feelings of awe increases consumers' pro-environmental attitudes and behavior. The findings also suggest that the ability of awe in encouraging pro-environmental behavior is driven by awe's power to elicit small self. This study also explores the effects of different sources of awe on consumers' pro-environmental behavior and suggest that when consumers feel awe from nature-related and God-related sources, they are more likely to engage in pro-environmental behavior in comparison to the ones that feel awe from man-made wonders (e.g. sculpture). Overall, this paper contributes to the pro-environmental attitudes and behavior literature by identifying the positive role of awe in consumers' pro-environmental behavior and offer ways to increase pro-environmental attitudes and behavior in the marketplace.

The detailed contributions and managerial and policy implications of the essays are discussed in the following chapters. The dissertation is structured as follows. Essay 1 is presented in Chapter 2. Essay 2 is presented in Chapter 3. Essay 3 is presented in Chapter 4. Theoretical and managerial contributions of this dissertation are discussed in Chapter 5.



## CHAPTER 2

### EMOTIONAL DRIVERS OF MATERIALISM: THE ROLE OF AWE IN CONSUMERS' MATERIALIST VALUES AND PRODUCT CHOICE

#### 2.1. Introduction

Enhancing consumers' well-being has been an area of interest recently and receiving significant attention from researchers. Increased consumers' well-being has important benefits both for individuals as well as for society as a whole (Zhong and Mitchell 2010). Previous research shows that individual well-being is determined by three main predictors: (a) genetic, (b) circumstantial or (c) intentional positive behaviors or cognitions (Lyubomirsky et al. 2005). Genetic factors account for 40-55% of the variation in one's well-being, however they are not easy to change (Diener et al. 1999). Circumstantial factors only account for 8-15 % of the variation in well-being (Diener et al. 1999). However, intentional positive behaviors and cognitions account for approximately 40% of the variance in well-being and since individuals have the ability to control them (Lyubomirsky et al. 2005), this predictor seems to be the most effective among others to focus for those aiming to enhance well-being. Therefore, it is necessary to find ways that can reduce consumers' negative behaviors in which accordingly might increase the positive ones and enhance consumers' well-being.

Previous research suggests that some types of consumption activities have detrimental effects both on individuals and society. However, it is important to determine which types of consumption activities lead to higher well-being and which ones result in low well-being (Zhong and Mitchell 2010). In relation to that, previous studies show that consumers' unstoppable desires to consume prevent them from

reaching consumer satisfaction and brings financial insecurity, consumer debt (Schor 1999) as well as physical and psychological problems that eventually reduce their well-being (Kasser and Ryan 1993). Additionally, the entire economic system encourages people to buy more regardless of whether they have the money to do so (Gregoire 2014). As a result, materialistic consumption, and consequently overconsumption, can cause physical, psychological, and financial problems. With regard to this, materialistic consumption literature suggests that consumers making consumption as the central goal of their lives suffer more from negative well-being (Burroughs and Rindfleisch 2002; Zhong and Mitchell 2010). Further, consumers who are high in materialist values, are generally self-focused and less satisfied in their lives, and use their possessions to fulfill their emptiness and psychological insecurity (Cryder et al. 2008; Van Boven et al. 2010). Consuming more could make these kinds of consumers happier in the short-term, however this type of behavior has no long-term positive outcomes (Zhong and Mitchell 2010). Also, materialistic consumers experience more negative emotions than positive ones during their lives compared to other consumers (Richins 2012). Most of the time, consumers engage in materialistic consumption as a way to cope with negative feelings such as loneliness (Pieters 2013), lower levels of happiness (Kasser and Ryan 1993) and decreased life satisfaction (Tsang et al. 2014). Besides, high materialist values cause a lack of control over consumption practices which in turn lead to diminished physical well-being (Burroughs and Rindfleisch 2002; Lee and Ahn 2016). For instance, consumers that have high materialist values are more likely to have higher levels of anxiety and depression as well as suffer more negative physical symptoms (Kasser

2003). In summary, research on materialist values and accordingly materialistic consumption highly associates these values and this type of consumption behavior with negative consequences both for individuals and for society (Scott et al. 2014).

Despite the negative consequences of materialist values, these values are prominent in American culture (Richins and Dawson 1992). Seventy-one percent (71%) of American purchases are spent on consumer goods, and Americans, on average, spend more on shoes, jewelry, and watches than they spend on higher education (De Graaf et al. 2014). Also, as Cross (2000) suggested, materialist values and increased levels of materialistic consumption divide and isolate Americans (e.g. Sheth et al. 2011). As a result, it is important to consider mechanisms for reducing consumers' materialist values.

Regarding studying values, previous research shows that if values are seen as abstract concepts, it would be hard to study an abstract concept methodologically since their effect on behaviors could not be predictable (Ajzen and Fishbein 1977). However, as Maio (2010) suggests, aiming to understand the role of values in one's attitudes and behaviors, the best way is to see values as mental representations. According to Maio (2010), values should be regarded as other concepts and categories and need to be studied in the same way that researchers study attitudes and goals. Therefore, since values are mental representations, then it would be important to find ways to prime these within the whole system. As Maio and Olson (1998) proposed, emotions play an important role in priming values since emotion is regarded as the dominant source of values. However, although emotions play an important role in shaping consumer

judgment and decision making (Han et al. 2007; Carrus et al. 2008), there is little research in the field exploring the effects of emotions in materialist values and the existing research mostly focus on the role of negative emotions (e.g. anxiety, anger, depression; Kashdan and Breen 2007) rather than positive ones.

Given that materialist values increase in an attempt to reduce negative emotions and increase positive ones [e.g., loneliness (Pieters 2013), happiness (Watson 2003), life satisfaction (Tsang et al. 2014), fulfill emptiness (Cryder et al. 2008)], I seek to identify an emotion which might counteract this. One emotion that may help to overcome materialist values by increasing people's feeling of connectedness to others as well as their well-being and life quality, is "awe". Awe triggers a feeling that one is part of something that is larger than oneself, shifting one's focus from the self to others and eliciting the idea of smallness of the self which can lead to a feeling of 'diminished' self-concept (Keltner and Haidt 2003). The idea of small self results in the sensation of belonging to larger categories, like community, culture, or nature (Piff et al. 2015) and changes one's definition of self-concept from being individualistic to more collectivist (Shiota et al. 2007). Feelings of awe also promote positive behavior among individuals and may lead to less impatience, an increased sense of well-being and greater adoption of prosocial and other-oriented behaviors (e.g., Keltner and Haidt 2003; Rudd et al. 2012; Piff et al. 2015). Enhanced prosocial tendencies result in an increased desire to care and share which causes awe to be regarded as a collective emotion (Piff et al. 2015). Therefore, experiencing awe encourages individuals to shift their focus from their daily concerns to others and to be effective members of their society (Piff et al. 2015).

Given awe's impact on greater adoption of prosocial and other-oriented behaviors, I propose that awe might also impact consumers' materialist values. Awe shares several similar characteristics with other emotions. However, awe is considered as a unique emotion in the sense that it alters the self concept and increases emphasis on universal self-definition (Shiota et al. 2007; Piff et al. 2015). Awe also encourages individuals' desires to see meaning in the world (Valdesolo and Graham 2014) and to put less emphasis on their self concerns (Piff et al. 2015). Therefore, awe has the power to alter the underlying insecurities of individuals and to encourage them to adopt positive behavior. In this research, I explore the impact of awe on consumers' materialist values as well as on consumers' product choices (experiential vs. material possessions). I expect that feelings of awe will reduce consumers' materialist values and will increase their likelihood of choosing experiential goods over materialistic ones. Additionally, I also propose that feelings of small self will play an important role in increasing consumers' desire for experiences over material possessions and will serve as a mediator in the proposed model.

## **2.2. Theoretical Background**

Feelings of awe have been associated with a sense of collective identity and diminishes the attention to the individual self and increases attachment, collaboration and cooperation with others (Shiota et al. 2007; Piff. et al. 2015). Eventually, awe causes a shift in people's self-representation (Piff et al. 2015). Awe is an emotion that promotes selflessness, enhances one's well-being, and causes individuals to put less emphasis on

their self-concerns and more on issues outside the self. Given that materialism is more of a self-focused value (Van Boven et al. 2010), these characteristics of awe suggest that awe should be negatively associated with consumers' materialist values.

Therefore, I propose the following:

H<sub>1</sub>: Consumers experiencing awe will report lower levels of materialist values than those not currently experiencing awe.

Previous research also shows that feelings of awe are more likely to be induced through information rich stimuli, such as experiences, but not induced by material or social rewards (Shiota et al. 2007; Rudd et al. 2012). At the same time, in congruence with the characteristics of awe and its high association with small self, experiences are also more likely to be social and to be discussed and shared with others since these activities increase the enjoyment of the current moment (Alba and Williams 2013). In contrast, when people discuss material purchases with others, they are more likely to be stigmatized by others (e.g. they can be perceived as they are trying to show-off to others; Van Boven et al. 2010). Additionally, experiences are unique like feelings of awe in the sense that they cannot be easily compared with other experiences. For instance, it is not easy to compare one natural beauty with another, however it is much easier to compare features of one car with the features of another (Carter and Gilovich 2010).

In experiential purchases, the primary intention is to acquire a life experience such as an event one lives through whereas in material purchases, the primary intention is to acquire a material good such as a tangible object one owns (Van Boven and Gilovich 2003). As Van Boven and Gilovich (2003) discusses, even though the distinction

between experiential purchases and material purchases are not clear cut (e.g. similar to the distinction between hedonic and utilitarian goods), this categorization has been recognized and widely used (e.g. Van Boven and Gilovich 2003; J. Zhong and Mitchell 2010; Rudd et al. 2012). The results from the studies that employed this categorization showed that experiential purchases make people happier than material purchases as well as individuals believe that experiential purchases are considered as better financial investments than material purchases (e.g. Van Boven and Gilovich 2003). Also, in a longitudinal study, Zhong and Mitchell (2010) found that spending money on experiential products rather than material goods increases one's well-being. Well-being is seen as "the sum of many positive and enjoyable experiences" (Zhong and Mitchell 2010, p.6) and experiences result in an increased well-being due to their "spillover" effect. When consumers spend money for experiences such as attending a concert with friends, they do not only engage in a pleasurable activity, but also, they have a chance to build and maintain social connections which accordingly increase their quality of life and well-being (Zhong and Mitchell 2010). Therefore, the spillover effects of these types of consumption activities result in greater satisfaction, happiness and increased well-being.

Additionally, consumption of experiential products is highly associated with positive emotions given that consumers would prefer to engage in a series of experiential consumption with the aim of re-experiencing similar pleasurable feelings again (Hagtvedt and Patrick 2009). For example, Rudd and colleagues (2012) suggested that experiences of awe can cause people to feel that they have more time available in

this world by altering the subjective experience of time and adjusting people's time perception. Accordingly, Rudd et al. (2012) found that since people assume that they need to devote more time for experiences, an increase in perceived time availability through awe causes people to choose experiences more as opposed to material goods. In this research, I expect a similar finding (awe leads to increased choice of experiences over material goods), but suggest a different underlying mechanism. Specifically, because awe shifts the individual's focus away from the self (Shiota et al. 2007) and connects people to others and accordingly bolsters social relations (Piff et al. 2015), I expect those feeling awe will prefer experiences over material possessions. Additionally, feelings of small self play an important role in one's connection to others through causing a diminished self (Piff et al. 2015). However, in this context, what is suggested as a small self (diminished self) concept is not a negative feeling (Koh et al. 2017) such as loneliness. The concept of small self shifts one's focus from the self to nature, to one's surroundings and to other people around (Shiota et al. 2007) resulting in increased awareness of reality (Koh et al. 2017) which enhances collaboration and cooperation (Piff et al. 2015). So, I expect that small self will mediate the effect of awe on consumers' preferences of experiential purchases over material ones. Thus, I propose the following:

H<sub>2</sub> Given reduced levels of materialist values, those experiencing awe will be more likely to choose experiences over material possessions.

H<sub>3</sub>: A sense of small self will mediate the effects of awe on consumers' product choices (experiences vs. material possessions).



I test these hypotheses across three studies. In Study 1, I test whether the manipulation of awe (compared with neutral state) decreases the levels of consumers' materialist values. In Study 2, I extend my inquiry to examine whether awe leads to a reduced likelihood of choosing material possessions (vs. experiential goods). In Study 3, I replicate my findings from previous studies and I also test whether small self mediates the relation between awe and consumers' desire to prefer experiences over material possessions.

## **2.3 Studies**

### **2.3.1 Study 1**

The purpose of this study is to provide initial support for the effect of awe on consumers' materialist values (H<sub>1</sub>).

#### **2.3.1.1 Method**

##### **2.3.1.1.1 Sample**

Ninety-four undergraduate students (30% female) from a large public university received extra course credit for their participation.

##### **2.3.1.1.2 Materials, design and procedure**

The study used a one-factor (emotion: awe, neutral) between-subjects design. Emotions were induced by asking participants to watch either an awe-eliciting 60-s commercial for an LCD television (taken from Rudd et al. 2012) or a neutral video (taken from Schaefer et al. 2010). After the emotion induction task, participants answered

questions related to their materialist values (18-item scale from Richins 2004;  $\alpha=.73$ , see Appendix A for items). Participants then rated the extent to which they experienced 9 different emotions (1= Not at all, 7= Very Much): anger, awe, disgust, happiness, pride, sadness, fear, joy and excitement. Finally, participants provided demographic information.

### 2.3.1.2 Results

*Manipulation check.* Those viewing the awe-video reported significantly higher levels of awe ( $M = 4.48$ ) than those viewing the neutral-video ( $M = 2.17, p < .01$ ). However, in addition to awe, the two video conditions (awe, neutral) differed with respect to happiness ( $M_{awe}=4.27, M_{neutral}= 2.59, p<.001$ ), pride ( $M_{awe}=3.17, M_{neutral}= 2.13, p<.003$ ), joy ( $M_{awe}=3.92, M_{neutral}= 2.26, p<.001$ ) and excitement ( $M_{awe}=4.14, M_{neutral}= 2.52, p<.001$ ). Thus, I controlled for these ancillary emotions in my analysis.

*Materialism ( $H_1$ ).* To test  $H_1$ , I conducted an ANCOVA controlling for the ancillary emotions as well as gender since prior research has shown that in some situations, males are higher in adopting materialist values than females (Kasser and Ryan 1993). The ANCOVA revealed a significant effect of awe ( $F(1,87) = 4.50, \eta p^2 = .05, p<.04$ ) with those in the awe condition reporting significantly lower levels of materialist values

( $M_{awe} = 3.92$ ) than those in the neutral condition ( $M_{neutral} = 4.14$ ), supporting H<sub>1</sub>. None of the covariates were statistically significant ( $p$ 's >.05)<sup>1</sup>.

### **2.3.1.3 Discussion**

This study tested the effect of awe on consumers' materialist values. Consistent with the first hypothesis, I found that awe can reduce consumers' materialist values. In study 2, I extend my inquiry and tested the role of awe in consumers' product choices (experiential vs. material products). This time I used a different sample and a different emotion manipulation. Although prior research had successfully used the emotion videos I used in this study (e.g. Rudd et al. 2012), in my sample, I found differences in several positive emotions besides the focal emotion of awe. While the effects of awe were observed even when controlling for these ancillary emotions, in Study 2, I created two new videos for the emotion manipulation.

### **2.3.2 Study 2**

The purpose of this study is to test the role of awe in consumers' product choices (experiential vs. material possessions, testing H<sub>2</sub>).

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<sup>1</sup> The result of the study was still significant if I did not control for the ancillary emotions ( $p = .03$ ), or gender in addition to the ancillary emotions ( $p = .049$ ).

### 2.3.2.1 Method

#### 2.3.2.1.1 Sample

Two-hundred and seven US adults from Amazon Mechanical Turk participated in the study. Prior research suggests Mturk is a reliable participant pool (Goodman et al. 2013) and is considered as a trustworthy source of participants for psychological and marketing experiments (Mason and Suri 2012). I removed thirty respondents who guessed the purpose of the overall study. Additionally, I excluded five respondents who failed the attention check questions. I also removed five respondents who completed the study in less than three minutes (the average completion time was 6.53 minutes). This data cleaning process resulted in one-hundred and sixty-seven respondents in total (49.4% female,  $M_{age}=39.9$ , range: 22-81,  $SD= 12.86$ ; 67.9 % Caucasian, 10.1% African/American, 4.8% Hispanic, 11.9% Asian, 5.4% other).

*Pretest.* A pretest was conducted to assess the effectiveness of the emotion manipulation. Sixty participants (58.3% female;  $M_{age} = 42.5$ , range: 24-75,  $SD = 12.5$ ; 81.7% Caucasian, 8.3% African American, 5% Hispanic, 3.3% Asian, 1% other) were recruited from Amazon Mechanical Turk. Participants viewed one of two 60-second videos: an awe-inducing video that contained nature scenes or a neutral video containing abstract images. Results confirmed the effectiveness of the manipulation. Those viewing the awe-video reported significantly higher levels of awe ( $M = 4.13$ ) than those viewing the neutral-video ( $M = 2.67$ ,  $p < .005$ ). There were no differences

between the two videos with respect to any other emotions measured (anger, disgust, happiness, pride, sadness, fear, joy, excitement; all  $p$ 's > .1).

#### **2.3.2.1.2 Materials, design and procedure**

The study used a one-factor (emotion: awe, neutral) between-subjects design. Participants were told that they would be taking part in a study on “consumer feelings, values, and behaviors”. Participants were shown either the awe-eliciting 60-s video that includes nature scenes or the neutral one that has abstract images, and then, based on prior research examining experiential and materialistic purchases (Rudd et al. 2012), participants were presented with a series of choices pitting equivalently priced materialistic options vs. experiential ones. Specifically, participants were asked to choose between \$10 gas card or \$10 movie-theater card, \$25 backpack or \$25 iTunes card, \$50 gift card for jacket or \$50 restaurant dinner voucher, \$70 scientific calculator or \$70 professional massage, and \$200 gift card for a watch or \$200 Broadway show ticket. Participants then rated the extent to which they experienced 9 different emotions (1= Not at all, 7= Very Much): anger, awe, disgust, happiness, pride, sadness, fear, joy and excitement. Finally, participants provided demographic information.

#### **2.3.2.2 Results**

*Manipulation check.* While the pretest supported the effectiveness of the videos for uniquely manipulating awe, emotion measures in the main study indicated that the two video conditions (awe, neutral) differed with respect to pride ( $M_{awe}=3.65$ ,  $M_{neutral}=$

2,99,  $p < .05$ ), joy ( $M_{awe} = 4.54$ ,  $M_{neutral} = 3.80$ ,  $p < .05$ ), and happiness ( $M_{awe} = 5.06$ ,  $M_{neutral} = 4.07$ ,  $p < .05$ ). Thus, I controlled for these ancillary emotions in my analysis. I also controlled for gender, age, income, marital status and education since prior research has shown these factors are highly associated with adopting materialist values (Kasser and Ryan 1993; Cacioppo and Patrick 2009; Ponchio and Aranha 2008; Martin and Hill 2011).

*Experiential versus material product choices.* An ANCOVA revealed a marginally significant effect of awe on product choices ( $F(1, 156) = 3.49$ ,  $\eta p^2 = .02$ ,  $p = .06$ ). Those in the awe condition chose experiences over 50% of the time ( $M = 53\%$ ,  $SD = 26.03$ ) while those in the neutral condition chose experiences less than half the time ( $M = 45\%$ ,  $SD = 25.42$ ). None of the ancillary emotions as covariates were significant ( $p's > .05$ )<sup>2</sup>.

### **2.3.2.2 Discussion**

This study extended my inquiry about the role of awe in consumers' materialism and examined the effect of awe on consumers' product choices (experiential vs. material products). Consistent with the second hypothesis, I found that feelings of awe increase consumers' willingness to engage in experiences and encourage consumers to prefer experiential products over material ones. I design Study 3 to replicate my findings from Studies 1 and 2. I also explore the underlying mechanism for the relation between

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<sup>2</sup> The result of the study was still significant if I do not control for demographics ( $p = .024$ ) and marginally significant if I did not control for the ancillary emotions ( $p = .07$ ).

awe and consumers' product choices by examining the role of small self as a mediator in this proposed model.

### **2.3.3 Study 3**

The purpose of this study is to replicate my findings from Studies 1 and 2 as well as test the mediating role of small self ( $H_3$ ).

#### **2.3.3.1 Method**

##### **2.3.3.1.1 Sample**

Ninety-six US adults from Amazon Mechanical Turk participated in the study (52.1% female;  $M_{age}=37.59$ , range:19-74,  $SD= 11.9$ ; 74% Caucasian, 6.3% African/American, 8.3% Hispanic, 8.3% Asian, 3.1% other).

##### **2.3.3.1.2 Materials, design and procedure**

The study used a one-factor (emotion: awe, neutral) between-subjects design. Participants were told that they would be taking part in a study on "consumer feelings, values, and behaviors". Participants were shown either the awe-eliciting 60-s video that includes nature scenes or the neutral one that has abstract images (Study 2), then answered same questions as in Study 1 about materialist values (18-item scale from Richins 2004;  $\alpha=.90$ ) and also answered questions about small self (7-items scale from Shiota et al. 2007,  $\alpha=.82$ ; see Appendix A for items). Then, I used the same measures as in Study 2 in order to assess participants' product choices. Participants then rated the

extent to which they experienced 9 different emotions (1= Not at all, 7= Very Much): anger, awe, disgust, happiness, pride, sadness, fear, joy and excitement. Finally, participants provided demographic information.

### 2.3.3.2 Results

*Manipulation check.* In addition to awe, the two video conditions (awe, neutral) differed with respect to pride ( $M_{awe}=2.71$ ,  $M_{neutral}= 3.63$ ,  $p<.05$ ), joy ( $M_{awe}= 2.92$ ,  $M_{neutral}= 3.77$ ,  $p<. 05$ ), and fear ( $M_{awe} = 1.48$ ,  $M_{neutral}= 1.10$ ,  $p<.05$ ). Thus, I controlled for these ancillary emotions in my analysis as well as demographics (gender, age, income, marital status and education) consistent with previous research and Study 2 (Kasser and Ryan 1993; Cacioppo and Patrick 2009; Ponchio and Aranha 2008; Martin and Hill 2011).

*Materialism ( $H_1$ ).* I tested whether emotion condition influenced materialist values. An ANCOVA revealed a significant effect of awe on materialist values ( $F(1, 86) = 5.31$ ,  $\eta p^2 = .06$ ,  $p < .03$ ). Consistent with Study 1, those who saw the awe-eliciting video reported having less materialist values than those in the neutral condition ( $M_{awe} = 3.42$ ,  $M_{neutral} = 3.76$ ).

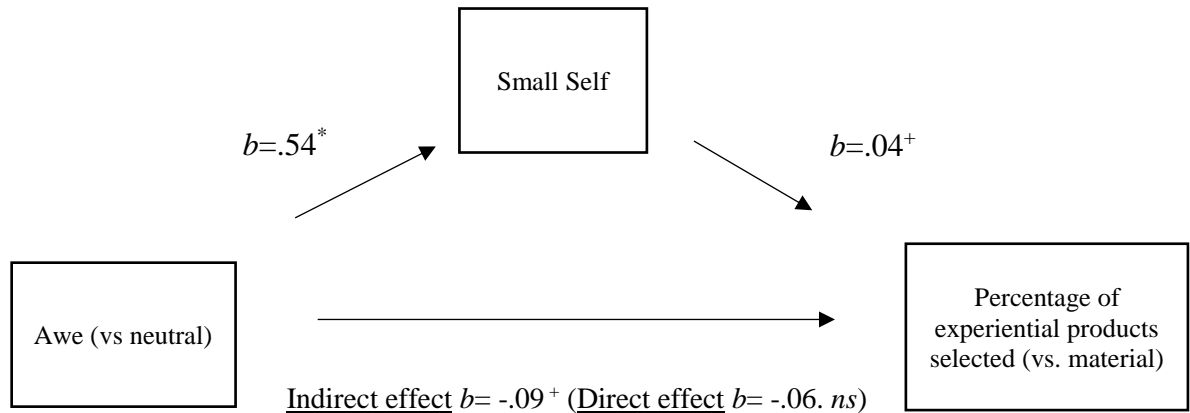
In terms of the covariates, fear and joy were statistically significant ( $p < .05$ ) where pride was not ( $p>.4$ ). To have greater confidence that the reduction in materialist values was due to awe and not another emotion, I also regressed (measured) awe, fear, and joy on materialist values. There were significant effects of awe ( $b = -.163$ ,  $t = -2.12$ ,



$p < .05$ ) and fear ( $b = .450, t = 3.44, p < .01$ ) on materialist values, but not for joy ( $p > .8$ ). However, only awe had a negative effect on materialist values, suggesting it is awe, and not fear, accounting for the initial result.

*Experiential versus material product choices.* Again first I calculated the percentage of experiential products that each participant chose across the five given choices. Consistent with Study 2 and H<sub>2</sub>, an ANCOVA revealed a marginally significant effect of awe on product choices ( $F(1, 86) = 2.94, \eta p^2 = .03, p = .09$ ). Those in the awe condition chose experiences over 50% of the time ( $M=54\%, SD = 23.03$ ) while those in the neutral condition chose experiences less than half the time ( $M=49\%, SD=24.74$ ). None of the ancillary emotions as covariates were significant ( $p's > .05$ ).

*Mediation analysis.* To further test the underlying process in my conceptual framework and H<sub>3</sub>, I conducted a mediation analysis with small self as a mediator. I tested the proposed mediating effect using the PROCESS macro for SPSS (Hayes 2013). In this model, the independent variable was emotion condition (awe vs. neutral), the mediator was small self, the dependent variable was product choices (experiential vs. material), and the control variables are pride, fear, joy, gender, income, age, education and marital status. Bootstrapping analysis with 5,000 resamples excluded zero for the proposed indirect mediation path (effect=  $-.0229$ , 95% confidence interval:  $-.0752$  to  $-.0014$ ; See Figure 2.1). These results support H<sub>3</sub>, showing that small self mediates the relation between awe and consumers' willingness to choose experiential products over material ones.



**Figure 2.1: Mediation Analysis**

*Unstandardized coefficients are displayed. \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , +  $p < .1$ ,  $ns$  = not significant*

### 2.3.3.3 Discussion

In this study, I replicated the results of Studies 1 and 2 while using a different emotion manipulation and a different sample pool than the ones I used in Study 1. The results from this study provided further evidence that awe reduces consumers' materialist values ( $H_1$ ). In addition, my findings suggest that feelings of awe lead participants to prefer experiential products over material possessions, providing support for  $H_2$ . As I hypothesized, these effects appear to occur because feeling of awe triggers a sense of something greater than oneself, leading to higher 'small self' rating (cf., Keltner and Haidt 2003; Shiota et al. 2007; Piff et al. 2015). This feeling of small self then mediated participants' tendencies towards experiential goods over material ones ( $H_3$ ). Therefore, I suggested a different path than Rudd et al. (2012) by showing that other than perceived time availability, small self plays an important role in increasing consumers' preferences towards experiences over material possessions.

## 2.4 General Discussion

Materialism has been a challenging issue in modern society. Although there are many studies addressing negative effects of materialism, little research has explored ways to reduce materialist values in the society. Although many studies identify negative effects of adopting higher levels of materialist values, more research is needed for how to effectively reduce materialist values. Unfortunately, efforts of researchers as well as attempts of government and nonprofit organizations have had little success in changing consumer behavior and preventing negative consumption practices (Prothero et al. 2011). Consequently, in this research, I seek to identify a factor which might reduce consumers' materialist values. More specifically, I focus my inquiry on emotions, as prior literature suggests that emotions play an important role in shaping consumers' judgments, evaluations and decision-making processes (Clore and Huntsinger 2007).

I find that awe, a powerful and less studied emotion in the consumer behavior field, successfully reduces consumers' materialist values. Study 1 offers experimental evidence that awe decreases consumers' materialist values. In Study 2, I found that consumers in the awe condition are more likely to prefer experiences over material possessions. In Study 3, I used a different manipulation of awe (different than Study 1) and replicated my findings from Studies 1 and 2, supporting that awe can play an important role in reducing consumers' materialist values. In addition, consistent with Study 2, my findings from Study 3 suggest that awe also has the power to influence consumers' product choices, making consumers more likely to prefer experiences over

material possessions. Study 3 also shows that this finding was driven by awe's ability to elicit feelings of "small self." Feelings of small self shifts one's focus from the self to others and to one's surroundings (Shiota et al. 2007) which eventually increases consumers' desire for experiences rather than material possessions.

## **2.5 Theoretical Contributions**

The insights from this research have important theoretical contributions. First, my findings contribute to the literature on materialistic consumption by introducing a novel emotion, awe, that reduces consumers' materialist values. Prior research mostly focuses on the negative consequences of adopting materialist values on consumers (e.g. Pieters 2013; Cryder et al. 2008; Van Boven et al. 2010), and more research is needed to identify ways to reduce these values. My findings suggest that awe can help reduce consumers' materialist values. Additionally, since there is an emerging research stream exploring ways to encourage consumers to prefer experiences over material possessions (e.g. Caprariello and Reis 2013; Zhang and Kim 2013), this research contributes to consumers' product choices literature by suggesting a path that can cause people to prefer experiences over material possessions which is different than Rudd and colleagues' (2012) findings. Rudd et al. (2012) found that increased perceived time availability led people to prefer experiential goods over material ones. In this research, I suggest that awe can be considered as an effective emotion that encourages consumers to prefer experiences over material possessions through triggering feelings of small self.

As a result, with this research, I show a different path that could increase consumers' psychological and physical well-being.

## **2.6 Managerial and Policy Implications and Future Research**

Awe is a powerful emotion that plays an important role in individuals' thoughts, judgments and behavior. Although this emotion has been studied widely in the field of psychology, little research has studied its impact on consumer behavior. My findings suggest that awe has a positive effect in reducing materialist values and increasing consumers' willingness to choose experiences over materials possessions. In doing so, this study opens a new research domain of awe in consumer behavior literature.

My research highlights how changes in emotions, specifically awe, may influence materialist values. These findings provide insights into new mechanisms for reducing materialist values within the society. This study demonstrated that awe can be elicited by features of a TV advertisement. For instance, marketers and policy makers can induce awe via advertisements during programs targeting children and especially adolescents and beyond which are considered as the most vulnerable age group to develop materialist values (Chaplin et al. 2014). Also imagery that invokes awe could be used in programs that provide support and education for individuals living in impoverished neighborhoods as well as the ones living in wealthy neighborhoods since previous research suggests that individuals living in wealthy neighborhoods are also susceptible to develop materialist values (Zhang et al. 2014). Thus, public service announcements or other educational interventions seeking to reduce materialist values

among the society could utilize awe-invoking imagery to increase the effectiveness of their message. Government authorities and policy makers could incorporate images that could elicit awe (e.g. nature imagery) aiming to empower individuals that experience difficulties (e.g. lower self esteem; Chaplin et al. 2014) due to their higher levels of materialist values. In terms of educational interventions, more images and videos could be used during lectures that would elicit awe to help children and adolescents to prefer experiences over material possessions. Further, awe-inducing music or other stimuli could be employed such as at entrances, restrooms or food courts of shopping malls where consumers are most susceptible to develop materialist values.

Several features of awe suggest that its benefits may not be specific to just materialist values. Awe is a collective emotion that triggers attachment to nature or humanity (Piff et al. 2015). It also can lead individuals to focus more on external (vs. internal) factors leading to increased prosocial behavior (Piff et al. 2015). As such, future research should explore the impact of awe on sustainable consumption, as well as downshifting and voluntary simplicity.

Overall, awe presents exciting research opportunities since this vital emotion has the power to encourage people to forego their individual interests and focus on other-oriented behavior. My findings provide evidence that awe can be used to reduce materialist values and point to the potential of awe as a source for encouraging other positive behaviors in addition to prosocial behavior (Piff et al 2015). By further studying the role of awe in consumer behavior, researchers, marketers, and policy makers can find better ways to combat increased materialist values and overconsumption in society.

## CHAPTER 3

### ARE WE “PINOCCHIOS” OR “ROBIN HOODS” IN THE MARKETPLACE: THE IMPACT OF AWE ON CONSUMERS’ MORALITY AND PROSOCIAL LYING BEHAVIOR

“Two things awe me most, the starry sky above me and the moral law within me.”

-Immanuel Kant

#### 3.1 Introduction

The well-known story of Pinocchio, about a wooden boy whose nose grows each time he lies, serves as a morality tale cautioning against lying. However, in real life, lying is a common phenomenon (Horne et al. 2007; Aquino et al. 2009). Ninety-percent of people start lying at the age of four, and previous research shows that, on average, individuals lie approximately 10 times a week (Benjamin 2012; Goldhill 2014). Given the prevalence of lying in our daily lives, there are many ways in which lying impacts marketplace behaviors from corporate scandals to consumer frauds. For instance, as The Brookings Institution projected, Enron and WorldCom scandals cost the U.S. economy almost \$37 to \$42 billion of Gross Domestic Product (GDP) in the first year alone (Graham et al. 2002; Mazar and Ariely 2006). Similarly, research shows that consumer frauds cause multibillion-dollar losses for organizations each year (Mazar and Ariely 2006). Consumers’ lying behavior occurs in the retail industry (e.g. “Wardrobing” or the return of used clothing; shoplifting), insurance industry, intellectual property theft (e.g. music, film or software piracy) (Speights and Hilinski 2005; Mazar and Ariely 2006), and during the time of tax returns (e.g. omitting income, inflating deductions), to list a few examples. For instance, shoplifting is considered as one of the most frequent “silent crimes” in the US, with about 550,000 incidents each day, and has a detrimental

impact both on industry and society (National Association for Shoplifting Prevention 2017). Overall, the examples mentioned above together cause the American economy to lose hundreds of billions dollars in investments, wages, and tax revenues along with hundreds of thousands of jobs (Mazar and Ariely 2006).

Although the damages of lying both to marketplace and to society are large, another stream of research provides a different view of lying behavior (e.g. Iñiguez et al. 2014, Warneken and Orlins 2015). Recent research on lying behavior suggests that all lies are not the same and classifies lying into two different types: antisocial and prosocial lies. Antisocial lies are self-serving lies that only target the benefit of the individual him or herself through the act of lying while at the same time might hurt others (Mann et al. 2014). In contrast, prosocial lies are intended to benefit other people and targets to make friendship and social networks stronger (Iñiguez et al. 2014). In our day-to-day lives, prosocial lying is as common as antisocial lies (Smith 2017). For instance, telling a friend s/he looks nice in a dress when in fact s/he looks terrible would be an example of a prosocial lie. Another example is when parents tell their children that it was Santa Claus who put gifts under the Christmas tree (Plante 2011). In these examples, prosocial lies are considered as 'white lies' and the intention is to prevent people from being hurt by learning the truth. Therefore, even though from early childhood we have been told that lying is wrong, we are also taught not to tell the truth in some conditions if the truth could hurt the recipient (Borsellino 2013).



Despite both types of lying being very common in our lives, not much research on consumers' lying has been conducted within consumer research. Those studies that do examine this issue generally explore consumers' unethical behaviors and immoral decision making processes (Sengupta et al. 2002; Horne et al. 2007; Firestone 2013), but have not explored if or how situational factors, such as current moods or emotions, influence consumers' lying behavior as well as their judgments on morality. There is some research related to the impact of emotions on moral judgment in the field of social psychology and neuroscience (e.g. Bargh and Chartrand 1999; Moll et al. 2002; Greene et al. 2001); however, these studies present contradictory findings. While some find that emotions (specifically focusing on moral emotions such as compassion, anger, shame etc.) play a significant role in moral judgment (e.g. Greene et al. 2001), others find that moral judgments are a quick, automatic reaction without the involvement of any kinds of feelings (e.g. Moll et al. 2002; Greene and Haidt 2002). Additionally, to date, little to no research explores ways to increase morality and accordingly reduce lying behavior in the marketplace. The current research addresses these gaps.

More specifically, in this research, I explore the impact of awe on consumers' morality and lying behavior. Awe is a unique and a self-transcendent emotion that has two central themes: triggering a sense of smallness which is the feeling of being in the presence of something vast that transcends our understanding of the world (Shiota et al. 2007), and encouraging the desire to be good to others by promoting prosocial and other-oriented behaviors (Piff et al. 2015). Enhanced prosocial tendencies result in an increased desire to care and share causing awe to be regarded as a collective (Piff et al.

2015) and a moral emotion (Keltner and Haidt 2003). Therefore, experiencing awe encourages individuals to be effective members of their society (Piff et al. 2015). On the other hand, when awe triggers a feeling of small self and a desire to be good to others, it may lead individuals not only to engage in prosocial behavior, but also it may increase individuals' desire to engage in prosocial lying since previous research suggests that prosocial lies help to prevent others from feeling hurt or embarrassed (DePaulo et al. 1996; Lupoli et al. 2017).

As a result of these characteristics, I propose that awe may increase the accessibility of people's moral identity, leading to a heightened sense of what is right and wrong which results in increased willingness to enact a moral behavior. However, because awe also leads to an increased awareness of others, it may ironically, increase the likelihood of engaging in prosocial lying aiming to help and benefit other people. To test these ideas, I explore whether awe influences consumers' morality and moral and lying behavior. In each study, I use different ways to measure consumers' moral behavior. In Study 1, I explore the impact of awe on consumers' accessibility of moral identity and their intention to enact a moral behavior as well as their moral acceptability of others' behaviors. In Study 2a, I examine the influence of awe on consumers' morality by assessing the effects of awe on different types of lying behavior, specifically focusing on antisocial and prosocial lying. In Study 2b, my aim is to replicate the findings from Study 2a in a real-world setting through naturalistic induction of awe. In study 3, I explore the impact of awe on consumers' prosocial lying in a different context (die-rolling task). In Study 4, aiming to replicate my previous findings, I test the role of awe in

increasing consumers' prosocial lying in a different consumer-related context. As a whole, this paper contributes to the morality in the marketplace literature by providing new remedies for increasing morality in the marketplace. This research also contributes to the lying literature by identifying an emotion that causally increases consumers' prosocial lying. In addition, it contributes to the emotion literature by identifying how a specific emotion, awe, influences consumers' lying and moral behavior.

## **3.2 Theoretical Background**

### **3.2.1. Awe, Moral Identity and Moral Behavior**

Since awe leads individuals to think of others and encourages them to be effective members of society (Piff et al. 2015), awe may influence one's morality. Morality evolved as a human need to live with others and is seen as inherently social (Komarova-Loureiro et al. 2016). The existence of morality affects social ties between individuals and groups positively and is highly supported by the members of the society that are in favor of making social life possible (Haidt 2008). Individuals with active moral identity are more likely to be honest, forgiving, helpful and instead of putting more emphasis on their self-interests, they are more concerned for the community and welfare of others (Aquino and Reed 2002; Aquino et al. 2009). Previous research shows that awe makes one's diminished self (small self) and collective identity salient which eventually increases one's prosocial and other-oriented behavior (Piff et al. 2015). This situation helps people to forego their self-interests in favor of others' welfare and makes them more connected to and care for others. Therefore, triggered collective

identity and small self, enhanced prosocial tendencies and increased desire to care should enable individuals' accessibility to moral identity. When one's moral identity is active, it is highly probable for that individual to want to benefit others and to avoid selfish behaviors (Aquino et al. 2009). As a result, the more salient one's moral identity, the more likely one is to behave in a moral manner. Since awe makes one's small self and collective identity salient and leads to an increased sense of awareness of others by promoting prosocial behavior, I propose that awe may trigger one's moral identity and may increase the likelihood of engaging in moral behavior. Additionally, I also believe that small self and moral identity play important roles in increasing consumers' desire to engage in moral behavior and will serve as mediators in the proposed model. Thus, I propose the following hypotheses:

H<sub>1</sub>: Consumers experiencing awe will have a heightened state of accessibility of moral identity.

H<sub>2</sub>: Consumers experiencing awe will be more sensitive to morality, leading them to (a) behave more morally themselves and (b) be more critical of others who behave immorally.

H<sub>3</sub>: Small self and moral identity will serve as mediators between awe and consumers' moral behavior (self).

### **3.2.2 Lying as a form of moral behavior**

#### **Two dimensions of lying: Prosocial Lying vs. Antisocial Lying**

Lying is very common but at the same time a complex phenomenon (Kornet 1997). The morality of lying behavior has been debated for a long time leading to the emergence of a new research stream suggesting that all lying behavior is not morally

wrong (e.g. Borsellino 2013; Lupoli et al. 2017). As the theory developed by Steinel, Utz and Koning (2010) suggests, the intended beneficiary of the lying act plays a crucial role in determining the morality of lying behavior. Prior research both from psychology and consumer behavior classifies lying into two different types: antisocial lying and prosocial lying (DePaulo et al. 1996; Mann et al. 2014). Antisocial lying aims to benefit the individual itself whereas prosocial lying intends to benefit others (Mann et al. 2014). As Immanuel Kant offered as an example of a dilemma: if someone with a weapon asks you whether you saw someone running away a minute ago and in what direction, are you going to tell the truth? Telling the truth might cause the death of that person. Therefore, telling the truth may not always be the most moral thing to do (Plante 2011). There is even empirical evidence suggesting that engaging in prosocial lying increases one's perception of moral character. Indeed, Levine and Schweitzer (2014) found that prosocial lies are perceived as more ethical than honest statements and usually individuals engage in prosocial lying even if there is a cost to the self (Erat and Gneezy 2012). Even though there is still debate regarding whether prosocial lies are more ethical since they are still lies, most of the time, as previous research supports, prosocial lies are considered more acceptable, moral, and sometimes quite necessary (Iñiguez et al. 2014; Borsellino 2013). Prosocial lies are also highly associated with people's good intentions and their desire to prevent others from any forms of harm such as getting hurt or embarrassed (DePaulo et al. 1996) or to benefit another financially (Erat and Gneezy 2012).

Since the main objectives of prosocial lying are benefitting a target (Levine and Schweitzer 2014), and at the same time, bolstering social ties (Mann et al. 2014), feelings of awe may lead individuals to engage in increased prosocial lying. Awe is regarded as a moral emotion (Keltner and Haidt 2003), triggers collective identity (Shiota et al. 2007) and increases individuals' desire to be socially responsive to the needs and interests of others (Piff et al. 2015). Therefore, awe elicits feelings that are consistent with the definition of moral behavior which is caring to needs of others (Aquino et al. 2009), but at the same time, individuals feeling awe, in turn, may engage in prosocial lying with the aim of showing their care to others.

Therefore, I propose the following:

H<sub>4</sub>: Consumers experiencing awe will be more likely to engage in prosocial lying than those in the neutral condition.

### **3.3 Studies**

Four studies provide support for awe having a positive effect on consumers' morality, moral behavior and ironically on their prosocial lying behavior. In the first study, I examine the influence of awe on consumers' moral identity, their intention to enact a moral behavior and their moral acceptability of others' behaviors as well as test the mediating roles of small self and moral identity (H<sub>1</sub>-H<sub>3</sub>). In Study 2a, I test the influence of awe on different types of lying behavior, specifically focusing on antisocial and prosocial lying (H<sub>4</sub>). In Study 2b, I replicate my findings from Study 2a in a real-world setting through a naturalistic induction of awe. In Study 3, I replicate my findings from prior studies in a different context, specifically using a die roll paradigm and test

whether awe influences consumers' desire to engage in prosocial lying (H<sub>4</sub>). In Study 4, I test the role of awe in consumers' prosocial lying in a different consumer-related context.

### **3.3.1 Study 1**

The purpose of this study is to test the effects of awe on consumers' moral identity (H<sub>1</sub>), their desire to enact a moral behavior (H<sub>2a</sub>) and their perceptions of others who behave immorally (H<sub>2b</sub>). I also test the role of small self and moral identity as mediators between the relation of awe and moral behavior (H<sub>3</sub>).

#### **3.3.1.1 Method**

##### **3.3.1.1.1 Sample**

One hundred and ninety-nine US adults (56.8% female) were recruited from Amazon Mechanical Turk ( $M_{age}=39.97$ , range:21-73,  $SD= 12.44$ ; 73.4% Caucasian, 10.1% African/American, 6.5% Hispanic, 8% Asian, 2% other). Prior research suggests Mturk is a reliable participant pool (Goodman et al. 2013) and is considered as a trustworthy source of participants for psychological and marketing experiments (Mason and Suri 2012).

### 3.3.1.1.2 Materials, design, procedure

The study used a 2 (emotion: awe, neutral) x 2 (behavior type: desirable, undesirable) between-subjects design with participants randomly assigned to condition. First, participants were asked to watch either an awe-eliciting 60-s commercial for an LCD television (taken from Rudd et al. 2012), or a neutral video (taken from Schaefer et al. 2010). After the emotion induction, participants read a business-related moral choice scenario (taken from Aquino et al. 2009) about initiating a cause-related marketing program. Participants were presented the following scenario:

Please imagine that you are the brand manager for a breakfast cereal company. Recently, you were approached by the American Cancer Society (ACS) to initiate a cause-related marketing program. Specifically, ACS would like you to donate 25 cents to a special fund for cancer prevention each time one of your products is purchased. According to your research department, adoption of the program is likely to cost more than it earns through an incremental sales increase. Consequently, IF YOU CHOOSE TO INITIATE THE PROGRAM, YOU WOULD BE LESS LIKELY TO EARN A YEAR-END BONUS.

After reading the scenario, participants were asked to indicate how likely they would be to initiate the cause-related program (1= extremely unlikely, 7= extremely likely).

Participants then rated the acceptability of four desirable or undesirable consumer behaviors (in random order; taken from De Bock et al. 2013), using a Likert scale ranging from “morally unacceptable” (1) to “morally acceptable” (7). The first scenario involved a consumer receiving too much change at a checkout. In the undesirable behavior condition, the consumer did not mention the error to the cashier



and kept the extra change. In the desirable behavior condition, the consumer told the cashier and returned the extra change. In the second scenario, a consumer downloaded music from the Internet either legally or illegally. The third scenario entailed a consumer who, upon leaving a supermarket, noticed that he or she had not been charged for a particular item and either did or did not go back to pay for it. Finally, the fourth scenario described a consumer who took a soft drink from the store shelf, drank it in the store, and did or did not pay for it at the checkout.

Next, participants answered questions measuring their accessibility of moral identity within the working self-concept (Aquino et al. 2009). To measure the accessibility of moral identity within the working self-concept, participants were asked to “rank the items listed on this screen in terms of who you are at the present moment” from “1= most reflect how you see yourself” to “7= least reflect how you see yourself.” Even though there are numerous identities that the participants could have used as a basis for defining their self, the presented identities were limited to five (i.e.; a moral person, a successful person, a family member, an independent person and an adult; taken from Aquino et al. 2009). Options were displayed in random order for each participant. The primary interest was the ranking of the “a moral person” option. Rankings of this option were coded such that higher values indicate greater accessibility of the moral self-schema within the working self-concept relative to other identities. Participants then answered questions for small self (7-items scale from Shiota et al. 2007,  $\alpha=.83$ ; see Appendix B for items). Finally, participants rated the extent to which

they experienced 9 different emotions (1= Not at all, 7= Very Much): anger, awe, disgust, happiness, pride, sadness, fear, peace and provided demographic information.

### 3.3.1.2 Results

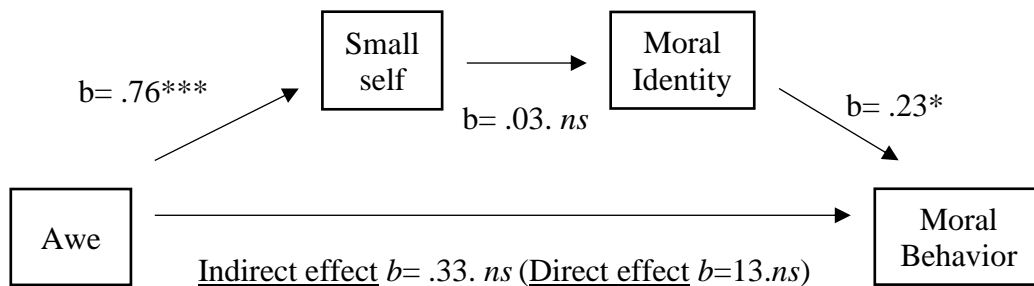
*Manipulation Check.* Results confirmed the effectiveness of the manipulation.

Those viewing the awe-video reported significantly higher levels of awe ( $M = 4.88$ ) than those viewing the neutral-video ( $M = 2.12, p < .01$ ).

*Accessibility of Moral Identity.* A one-way ANCOVA was conducted to test whether emotion condition influenced the accessibility of moral identity. I controlled for education in my analysis since previous literature suggests that education plays an important role in shaping individuals' morality and provides them the ability to engage in moral reasoning (Zeidler and Keefer 2003). Emotion had a marginally significant effect on current accessibility of moral identity ( $F(1, 196) = 2.96, \eta p^2 = .02, p = .09$ ). Those in the awe condition reported higher levels of accessibility of moral identity ( $M_{awe} = 5.77$ ) than those in the neutral condition ( $M_{neutral} = 5.45$ ), providing tentative support for  $H_1$ . Accessibility of moral identity, in turn, impacted the intention to enact a moral behavior ( $b = .29, t = 2.77, p < .007$ ).

*Moral Behavior (self).* A one-way ANCOVA showed no significant effects of emotion on the decision to enact the moral behavior in the cause-related marketing program scenario ( $F(1, 191) = 1.66, p > .1$ ), although the means were in the expected direction ( $M_{awe} = 3.94, M_{neutral} = 3.6$ ). Thus,  $H_{2a}$  was not supported.

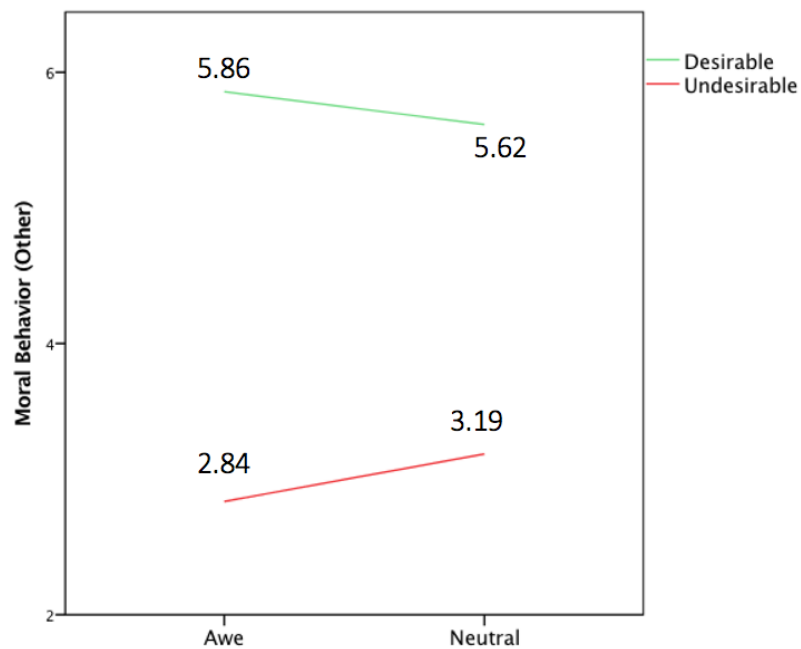
*Mediation analysis.* To further test the underlying process in my conceptual framework, I conducted a mediation analysis with small self and accessibility of moral identity as mediators. I tested whether awe triggers increased levels of small self, which increases consumers' accessibility of moral identity, resulting in greater willingness to engage in moral behavior. I tested the proposed mediating effect using the PROCESS macro for SPSS (Hayes and Preacher 2014). In this model the independent variable was emotion condition (awe vs. neutral), the first mediator, small self led to the second mediator, accessibility of moral identity. The dependent variable was enacting a moral behavior. Bootstrapping analysis with 5,000 resamples excluded zero for the proposed indirect mediation path (effect= .2143, 95% confidence interval: .0476 to .4400; see Figure 3.1), supporting H<sub>3</sub>.



**Figure 3.1: Mediation Analysis**  
 Unstandardized coefficients are displayed. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , ns= not significant

*Moral Behavior (other).* To test H<sub>2b</sub>, I averaged the acceptability ratings across the four scenarios ( $\alpha=.86$ ) and subjected them to a between-subjects ANCOVA with emotion and behavior type (desirable, undesirable) as factors and controlled for

education. The significant main effect of behavior, ( $F(1, 194) = 215.277, \eta p^2 = .53, p < .001$ ), showed that undesirable consumer behaviors ( $M = 3.01$ ) were less accepted than the desirable ones ( $M = 5.73$ ). I also identified a marginally significant interaction effect between emotion and behavior ( $F(1, 194) = 3.02, \eta p^2 = .02, p < .09$ ; see Figure 3.2). Those in the awe condition were more extreme in their judgments of morality (for both desirable and undesirable behaviors) than those in the neutral condition ( $M_{awe-desirable} = 5.86, M_{neutral-desirable} = 5.62, p < .001$ ;  $M_{awe-undesirable} = 2.84, M_{neutral-undesirable} = 3.19, p < .001$ ). Thus,  $H_{2b}$  was supported.



**Figure 3.2: Interaction of Emotion\*Behavior on Moral Behavior (other)**  
 $F(1, 198) = 3.02, p < .09$

### 3.3.1.3 Discussion

Study 1 provides preliminary support for the role of awe in moral behavior. Consistent with H<sub>1</sub>, participants in the awe condition reported higher levels of accessibility of moral identity, and accessibility of moral identity then predicted their moral choices (supporting H<sub>2a</sub>). Importantly, this study provided support for hypothesis 3 and showed the underlying mediational process that small self and moral identity serve as mediators between feelings of awe and intention to enact a moral behavior. Further, this study shows that those in the awe condition were more discerning regarding the acceptability of moral behaviors and less likely to find others' undesirable behaviors as morally acceptable (supporting H<sub>2b</sub>).

While Study 1 provides evidence that awe triggers small self leading to moral identity and the desire to enact a moral behavior, it is important to examine these processes in multiple contexts. In the remaining studies, I focus specifically on lying behavior, enabling me to also understand the impact of awe on lies that both benefit and harm others (prosocial, antisocial lies, respectively). In Study 2, I also use an emotion manipulation that contains abstract images and soothing background music (as opposed to an advertisement with content/story) in order to provide greater insight into how awe might be induced by marketers.

### **3.3.2 Study 2**

#### **3.3.2.1 Study 2a**

Study 2a tested the influence of awe on consumers' lying tendencies in situations involving both antisocial and prosocial lying (H<sub>4</sub>).

##### **3.3.2.1.1 Method**

###### **3.3.2.1.1.1 Sample**

The sample consisted of one hundred participants recruited from Amazon Mechanical Turk. Three respondents who guessed the purpose of the overall study were eliminated from the data. Additionally, four respondents who failed the attention check questions were removed from the study. I also removed nine respondents who completed the study in less than two minutes (the average completion time was seven minutes). This data cleaning process resulted in eighty-four respondents in total (42 participants per cell; 58.3% female,  $M_{age}=44.29$ , range: 21-76,  $SD= 13.57$ ; 69 % Caucasian, 13.1% African/American, 3.6% Hispanic, 10.7% Asian, 3.6% other).

###### **3.3.2.1.1.1 Materials, design, procedure**

This was a 2 (emotion: awe vs. neutral) x 2 (type of lie: antisocial vs. prosocial) mixed design with the first factor manipulated between-subjects and the second within-subjects. First, participants were asked to watch either an awe-inducing video that contained nature scenes and inspiring music, or a neutral video containing abstract images and soothing music (same emotion manipulation that is used in Chapter 2-

Studies 2 and 3). Then, participants were presented with a variety of everyday scenarios that could be perceived as dishonest and asked about their likelihood of lying in each situation. The scenarios contained 4 instances each of 4 different types of lies: antisocial lies of commission (e.g., “During a job interview, how likely are you to describe a previous work experience that never happened?”), antisocial lies of omission (e.g., “If you are given too much change at the grocery store, how likely are you to keep your mouth shut?”), prosocial lies of commission (e.g., “How likely are you to say that you loved a gift from a relative, even though it is a useless item?”), and prosocial lies of omission (e.g., “If your boss praises a colleague for their work on a group project when this colleague did not actually contribute, how likely are you to keep quiet about the colleague’s true contributions?”; taken from Mann et al. 2014; see Appendix B for the full list of questions). The 16 questions were presented to participants in randomized order. Participants were told to imagine themselves in each scenario and indicate their likelihood to tell the lie using 7-point scale (1= “not at all likely” to 7= “extremely likely”). As mentioned by Mann et al. (2014), all the scenarios were limited to be perceived as low-stakes lies that can be described as commonplace lies. Participants then rated the extent to which they experienced 9 different emotions (1= Not at all, 7= Very Much): anger, awe, disgust, happiness, pride, sadness, fear, peace. Finally, participants provided demographic information.

### 3.3.2.1.2 Results

*Manipulation Check.* Results confirmed the effectiveness of the manipulation. Those viewing the awe-video reported significantly higher levels of awe ( $M = 5.20$ ) than those viewing the neutral-video ( $M = 3.18, p < .01$ ).

*Moral identity.* A one-way ANCOVA (controlling for education) showed no significant effects of emotion on the accessibility of moral identity ( $F(1, 81) = .63, p > .3$ ), although the means were in the expected direction ( $M_{awe} = 5.9, M_{neutral} = 5.7$ ).

*Prosocial Lying.* To test  $H_4$ , I averaged the two different categories of prosocial lying (commission and omission), creating one scale for prosocial lying and one scale for antisocial lying. Then, I conducted repeated measures analysis to test the effect of emotion (awe; neutral) on lying behavior (antisocial vs. prosocial), controlling for education. As predicted in  $H_4$ , there was a significant emotion x lying interaction ( $F(1, 81) = 4.6, \eta p^2 = .05, p < .04$ ). Simple effects tests revealed a significant difference and showed that those in the awe condition were more likely to engage in prosocial lying than those in the neutral condition ( $M_{awe} = 4.88; M_{neutral} = 4.33, p < .05$ ), but no significant differences for antisocial lying ( $M_{awe} = 3.75; M_{neutral} = 3.78, p > .7$ ). Thus,  $H_4$  was supported.

### 3.3.2.1.3 Discussion

This study provides additional evidence that awe can influence moral behavior, expanding my inquiry into a different context. As predicted, this study shows that participants experiencing awe are more likely to engage in prosocial lying rather than antisocial lying. Prosocial lies are perceived as moral and preferred more than honest



statements in conditions with the intention to help someone (Levine and Schweitzer 2014). Therefore, feelings of awe triggers participants' desire to behave morally and to help others leading to a preference to engage in prosocial lying. As Mann et al. (2014) suggested "prosocial lies can function as social glue, bolstering the ties that exist between individuals" (p. 2). Since awe enhances individuals' desire to help other people around them by triggering their sense of collective identity and prosocial behavior, it may have led individuals to prefer to engage in prosocial lying aimed to benefit others. I design Study 2b to replicate my findings from this study in a real-world setting through naturalistic induction of awe.

### **3.3.2.2 Study 2b**

So far, I have found that feeling of awe (induced in the lab) is associated with increased morality and willingness to engage in moral behavior, and ironically, encouraging consumers' desires to engage in prosocial lying aiming to help and benefit others. Study 2b tested the effect of awe on consumers' likelihood of engaging in prosocial lying (H<sub>4</sub>) with a naturalistic induction of awe.

#### **3.3.2.2.1 Method**

##### **3.3.2.2.1.1 Sample**

The study used the same design as Study 2a, but with a different emotion manipulation. I sought to manipulate awe through exposure to nature, since Keltner and Haidt (2003) suggest that awe can be felt in nonsocial situations such as while hiking

in the mountains. Thus, I recruited thirty-six individuals from a local hiking group to participate in the study. Three participants were removed from the study because they took more than two hours to complete the survey. Six participants were removed from the study because they guessed the research objective which results in twenty-seven participants in total (45,2% female,  $M_{age} = 39.96$ , range: 18-63,  $SD = 13.11$ ; 89.3 % Caucasian, 7.1% Asian, 3.6% other).

### **3.3.2.2.1.2 Materials, design, procedure**

After providing consent, participants in the awe condition ( $n=12$ ) took the survey right after they completed their hike. Participants in the neutral condition ( $n=15$ ) took the survey before their hiking experience.

### **3.3.2.2.2 Results**

*Manipulation Check.* Results confirmed the effectiveness of the manipulation. Those taking the survey right after the hiking experience reported significantly higher levels of awe ( $M_{awe} = 4.71$ ) than those taking the survey before the hiking experience ( $M_{neutral} = 2.82$ ,  $p < .009$ ).

*Prosocial Lying.* To test  $H_4$ , I followed the same procedure as in Study 2. I conducted repeated measures analysis to test the effect of emotion (awe vs. neutral) on lying behavior (antisocial vs. prosocial), controlling for education. The emotion x lying interaction was not significant ( $F(1, 24) = .009$ ,  $p < .8$ ). However, there was a marginally significant main effect of emotion on lying behavior ( $F(1, 24) = 3.57$ ,  $\eta p^2 = .13$ ,  $p = .07$ ).

Those in the awe condition engaged in more prosocial lying compared to neutral condition ( $M_{awe}=4.54$ ;  $M_{neutral}=4.02$ ,  $p=.08$ ), but no significant difference for antisocial lying ( $M_{awe}=3$ ;  $M_{neutral}=2.58$ ,  $p>.1$ ). Thus,  $H_4$  is supported.

### **3.3.2.2.3 Discussion**

The objective of this study was to replicate the findings of Study 2a. Consistent with the findings of Study 2a, this study shows that participants that are naturally exposed to awe (hiking) are more likely to engage in prosocial lying in comparison to the ones in the neutral condition. Therefore, this study provides additional support that feelings of awe increases consumers' desire to engage in prosocial lying aiming to show their care to others. I design study 3 to replicate my findings in a different prosocial lying context.

### **3.3.3 Study 3**

#### **3.3.3.1 Method**

##### **3.3.3.1.1 Sample**

The sample consisted of 101 participants recruited from Amazon Mechanical Turk. Seventeen subjects were removed from the data who guessed the purpose of the study. Additionally, three subjects were removed from the study who entered improper amounts for die roll amount which results in eighty-one subjects in total (50.6% female,  $M_{age}= 41.73$ , range: 19-71,  $SD= 13.31$ ; 81.5 % Caucasian, 8.6% African/American, 3.7% Hispanic, 4.9% Asian, 1.2% other).

### **3.3.3.1.2 Materials, design, procedure**

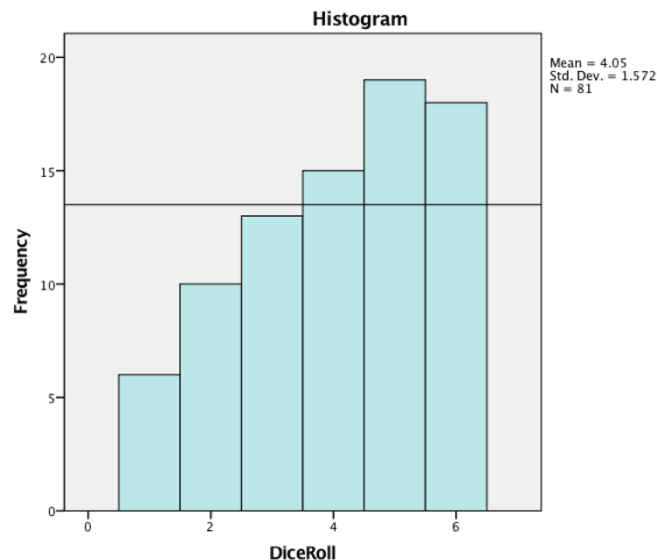
This study used a one factor (emotion: awe vs. neutral) between-subjects design. First, participants were asked to watch either an awe-inducing video that contained nature scenes and inspiring music, or a neutral video containing abstract images and soothing music (same emotion manipulation that is used in Study 2a).

After the emotion induction task, participants completed a task that measures their intention to engage in prosocial lying (adapted from Lewis et al. 2012). I asked participants to roll a die three times and only to report the number from their first throw. They were told that the purpose of rolling a die is to earn money to support people affected by Hurricane Harvey (a natural disaster that had occurred 3 weeks prior to the start of the study). Participants were informed that the amount of donation would be determined according to what the participants reported as the number represented by the rolled die. Participants were asked to roll an actual die if they already have it in a convenient location or they could visit one of the FREE websites that are for dice rolling (websites were provided to participants). Participants then were asked to check the number rolled and identified the corresponding amount of money earned for donation. After rolling for pay, participants were instructed to roll at least two more times to ensure that the die was legitimate. After that, participants were asked to record their donation amount by choosing one answer among six offered choices (the numbers and corresponding donation amount (\$) were as follows: if they roll 1: \$.25; 2: \$.50; 3: \$.75; 4: \$1; 5: \$1.25; 6: \$1.50). Participants were also given assurance that no one else could have any knowledge of the numbers rolled by the

participants. Based on the participants' reports in both conditions, I made the donation in total to the Hurricane Harvey Relief Fund (<https://ghcf.org/hurricane-relief/>)

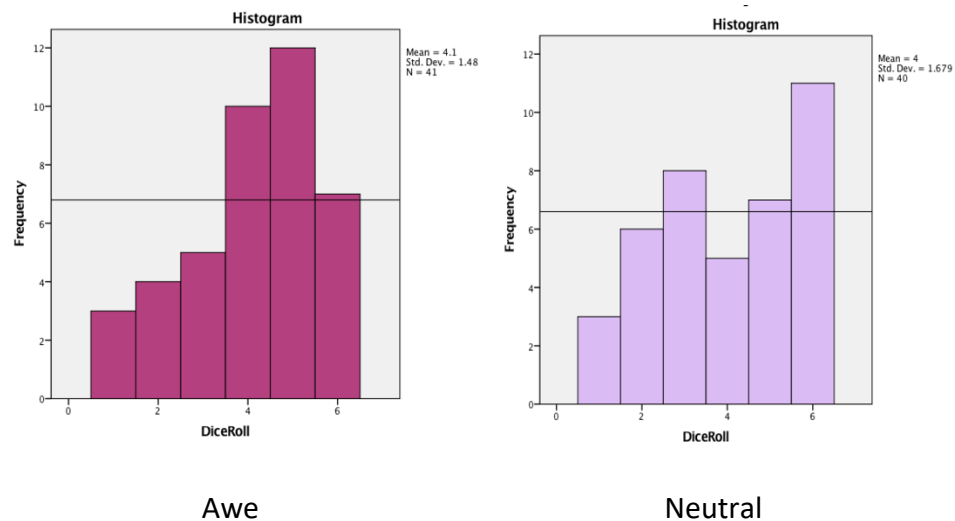
### 3.3.3.2 Results

A one sample Kolmogorov-Smirnov Z test was used to test whether the recorded throws produced a distribution that was significantly different from a uniform distribution of a fair die ( $Z= 2.31, p<.001$ ). As Figure 3.3 shows, this significant result was due to an under-reporting of 1's and 2's and an over-reporting of 5's and 6's. In this study, 22 % of the participants reported that they rolled a '6' in which a fair roll would produce a figure of 17%. So, as stated by Lewis et al. (2012), the difference between these two figures is the proportion of participants that lied about rolling a '6'.



**Figure 3.3: The frequency and percentage of die rolls (in comparison to the average frequency of 14)**

After showing that participants in this study were engaged in over-reporting, I now explored whether this situation differed based on the emotion conditions. The chi-square analysis was conducted to test whether there is any significant difference among emotion conditions based on the reported rolls. The results showed that reported dice rolls significantly differed based on emotions conditions ( $\chi^2(5) = 11.51, p < .05$ ). I also conducted Kolmogorov-Smirnov Z test for each emotion condition ( $Z_{awe} = 1.97, p < .002$ ;  $Z_{neutral} = 1.74, p < .006$ ). (see figure 3.4). As Figure 3.4 shows, participants in the awe condition were more likely to over-report and preferred to over-report 4's and 5's whereas participants in the neutral condition mostly over-report 6's.



**Figure 3.4: The frequency and percentage of die rolls for two emotion conditions**

### 3.3.3.3 Discussion

This study replicates the findings of the prior studies in a different context. In this study, participants that feel awe are more likely to engage in prosocial lying aiming to

benefit others (e.g. victims of Hurricane Harvey) in comparison to the ones in the neutral condition. Therefore, this study provides additional evidence that awe can increase individuals' desire to engage in prosocial lying (supporting H<sub>4</sub>). This study also shows people who feel awe are more likely to engage in actions aimed to show social responsiveness to the needs of others which is consistent with the definition of moral behavior (Aquino et al. 2009). So, consistent with H<sub>2a</sub>, individuals that feel awe are also more likely to engage in moral behavior since they aim to show their care to others. At the same time, as the results shows, the ones in the awe condition did not want to lie too much by not over-reporting 6's, which is the largest possible charity donation, but they did over-report 4's and 5's. In contrast, the ones in the neutral condition mostly over-report 6's. Therefore, this study provided evidence that feelings of awe encouraged people to help others which increased their tendency to engage in prosocial lying, but at the same time, they aimed to be consistent with their morality and did not prefer to over-report the largest possible amount like the ones in the neutral condition did.

#### **3.3.4 Study 4**

While Studies 2a, 2b, and 3, provide support for the role of awe in increasing prosocial lying behavior (vs. neutral condition) in several different contexts, to further increase the generalization of these results, in the current study, I seek to replicate my findings in a new consumer context and with a different emotion manipulation (writing task instead of a video task).

### **3.3.4.1 Method**

#### **3.3.4.1.1 Sample**

Two-hundred-two participants were recruited from Amazon Mechanical Turk. Seventeen participants were removed from the data that spent less than 2 minutes or more than thirty-five minutes to complete the survey (average time spent was eight minutes). I also excluded five respondents who guessed the research objective as well as excluded three participants because of straightlining. I also excluded eighty-one participants who did not complete the writing task as instructed. Thus, the final sample consisted of ninety-six participants in total (54.2% female,  $M_{age} = 40.6$ , range: 21-69,  $SD = 11.74$ ; 71.9 % Caucasian, 10.4% African/American, 3.1% Hispanic, 11.5% Asian, 3% other).

#### **3.3.4.1.2 Materials, design, procedure**

The study used a 2 (emotion: awe, neutral) x 2 (lying: prosocial, antisocial) mixed design with emotion manipulated between-subjects and the type of lie manipulated within-subjects. Participants were randomly assigned to one of the two conditions (awe vs. neutral) and were asked to write a narrative about their recent personal experience in which they felt either awe or neutral depending on the condition to which they were assigned.

The specific instructions that participants received in each emotion condition are below (taken from Piff et al. 2015).



Awe: Please take a few minutes to think about a particular time, fairly recently, when you encountered a natural scene that caused you to feel awe. This might have been a sunset, a view from a high place, or any other time you were in a natural setting that you felt was beautiful.

Neutral: Please take a few minutes to think about something you did fairly recently. This might have been riding a bike, studying for a test, or any other thing that happened during your day.

Participants were then presented with two different scenarios, one representing a situation that involved a prosocial lie (sweater) and one which involved an antisocial lie (shoes). The order of the scenarios was randomized.

#### Scenario 1 (Prosocial Lie)

Imagine that it is your birthday and your best friend, Sam, buys you a red sweater (which is the color you don't like to wear). When Sam asks your opinion whether you like the sweater:

- “How likely are you to tell Sam that you really like the sweater” (1=

Extremely Unlikely; 7= Extremely Likely).

#### Scenario 2 (Antisocial Lie)

Alex went shopping to buy a pair of sneakers. While looking around, Alex liked a pair of sneakers priced at \$60. Alex did not want to pay so much for sneakers and found another sneaker priced at \$45. However, Alex really preferred the expensive shoe. While deciding what to do, Alex noticed one of the shoe boxes had the wrong price on it. Even though Alex knew the price was wrong, Alex took the box to the check out. Alex paid the reduced price on the shoes and left the store.

After reading the scenario, participants answered the following question:

Based on the scenario, how likely would you be to behave similarly to Alex if you found yourself in the same situation (1: Extremely Unlikely- 7: Extremely Likely)

Participants then were asked to rate the extent to which they experienced 9 different emotions (1= Not at all, 7= Very Much): anger, awe, disgust, happiness, pride, sadness, fear, peace. Finally, participants provided demographic information.

### **3.3.4.2 Results**

To test H<sub>4</sub>, I conducted repeated measures analysis to test the effect of emotion (awe; neutral) on lying behavior (antisocial vs. prosocial), controlling for education. As predicted in H<sub>4</sub>, there was a significant emotion x lying interaction ( $F(1, 90) = 4.81, \eta p^2 = .05, p < .04$ ). Simple effects tests revealed a significant difference and showed that those in the awe condition were more likely to engage in prosocial lying than those in the neutral condition ( $M_{awe} = 5.31; M_{neutral} = 4.51, p < .05$ ), but no significant differences for antisocial lying ( $M_{awe} = 3.68; M_{neutral} = 3.03, p > .2$ ). Thus, H<sub>4</sub> was supported.

### **3.3.4.3 Discussion**

This study replicates the findings of the prior studies in a different consumer context. This study shows that consumers that feel awe are more likely to engage in prosocial lying in comparison to the ones in the neutral condition. Therefore, consistent with the findings from prior studies, this study provides additional evidence that awe can increase individuals' desire to engage in prosocial lying (supporting H<sub>4</sub>).

### **3.4 General Discussion**

Morality in the marketplace is crucial from the points of view of consumers, company employees, organizations and society at large. Yet, this issue has not received a lot of attention within the consumer behavior literature (see Williams et al. 2018 for exceptions). Some research has examined types of moral behavior, such as donating or recycling (e.g. Komarova-Loureiro et al. 2016), and a few studies explore consumers' lying behavior (e.g. Sengupta et al. 2002). Given the characteristics of awe as being a moral emotion (Keltner and Haidt 2003), triggering collective identity (Shiota et al. 2007) and encouraging individuals to engage in prosocial behavior (Piff et al. 2015), in this research, I explore the impact of awe on consumers' morality and lying behavior.

Study 1 offers experimental evidence that awe increases consumers' accessibility of moral identity. Study 1 also shows that, through the heightened levels of moral identity and small self, participants that are exposed to awe are more likely to engage in moral behavior (initiating a cause-related program). This study also shows that awe encourages consumers to be more sensitive to morality, which at the same time, causes consumers to be more critical of others who behave immorally. Participants in the awe condition were more likely to favorably rate others' desirable behaviors and found it morally unacceptable of others to practice undesirable behaviors in comparison to the ones in the neutral condition. Overall, this study provides initial evidence that awe plays an important role in consumers' morality, their desire to engage in moral behavior and their judgments of others' immoral behaviors.

Study 2 (a-b) offers experimental evidence that awe increases consumers' tendencies to engage in prosocial lying. Awe has the power to promote collective identity and attachment to others (Shiota et al. 2007) as well as to encourage people to feel more connected to other people in general (Van Cappellen and Saroglou 2012). At the same time, awe causes individuals to put less emphasis on the self and self-concerns and more on factors outside the self (Piff et al. 2015). These characteristics of awe might affect consumers' tendency to engage in prosocial lying with the aim of benefiting others and bolstering social ties by showing their care to others (Mann et al. 2014). Therefore, when consumers are exposed to awe and then have to decide whether to lie or not, the beneficiary of the lie plays a crucial role in their decision-making process.

Study 3 provided evidence that the influence of awe on consumers' desire to engage in prosocial lying can be extended to different contexts. In the die-roll task, consumers that were exposed to awe were more likely to over-report their throws from the die roll task; in other words, they were more likely to tell a prosocial lie to help those affected by Hurricane Harvey. However, consistent with my prior findings that awe increases morality, these consumers were more likely to tell white lies, over-reporting 4's and 5's to a greater extent than 6's.

Study 4 tested the role of awe in lying behavior in two different consumer contexts and using a different emotion manipulation. Results showed that participants in the awe condition (vs. neutral condition) are more likely to engage in prosocial lying by stating that they liked the sweater that their best friend purchased for them as a birthday gift, while there were no differences in likelihood of engaging in antisocial lying.

Thus, across four studies, I find evidence that awe triggers individuals' morality and increases their likelihood of engaging in prosocial lying intended to prevent harm and show their care for others.

### **3.5 Theoretical Contributions**

The insights from this research make important contributions to theory. This research contributes to the consumer morality literature by identifying an emotion – awe – that can trigger consumers' morality, and through activating moral identity and eliciting feelings of small self, also encourages individuals to engage in moral behavior. At the same time, this research contributes to consumer lying behavior literature since previous research mostly focuses on the situational factors or consumer characteristics of lying behavior (e.g. DePaulo et al. 1996; Sengupta et al. 2002) instead of examining the impact of specific emotions as a causal driver of lying. However, previous research shows that emotions play an important role in shaping one's behavior (Cavanaugh 2009) and specific emotions have unique effects on consumer behavior (e.g. Han et al. 2007, Williams et al. 2018). Therefore, aiming to understand the motivators of consumers' lying behavior, it is worthwhile to explore the impact of specific emotions. This study is one of the first studies that investigates the impact of a distinct emotion, awe, on lying behavior (See also Lupoli et al. 2017 for the effect of compassion on lying behavior). This research also draws attention to the distinction between the two types of lying behavior, antisocial and prosocial lying, which has been a neglected area in consumer research, although it has been recently studied in psychology (e.g. Borsellino 2013;

Mann et al. 2014; Lupoli et al. 2017). Previous studies in consumer research mostly focuses on the negative consequences of consumers' lying behavior in the marketplace (Sengupta et al. 2002); however, no research has examined the possible effect of a specific emotion and its influence on consumers' prosocial lying behavior. This distinction is important in the sense that these two types of lying behavior have different effects on consumers and affect consumers' morality differently (Levine and Schweitzer 2014). Therefore, while studying lying behavior in consumer context, this distinction is essential to identify the possible motivators and to draw accurate conclusions. Additionally, this research extends theory on prosocial lying and shows that awe influences and encourages consumers to engage in prosocial lying. So, the present research will enrich our understanding of how awe affects consumers' morality and consumers' prosocial lying behavior.

### **3.6 Managerial Implications and Future Research**

Awe increases the salience of consumers' moral identity, makes people more discerning regarding the acceptability of moral behaviors, and increases consumers' tendencies to engage in prosocial lying. An important question is how organizations, marketers, and managers can use this knowledge to enhance morality in the marketplace. Immoral behaviors have many negative outcomes in the marketplace (i.e., financial: losses of hundreds of thousands of investments, tax revenues; social: lower well-being of consumers, organizations and society at large; Komarova- Loureiro et al.

2016); therefore, it is crucial to find ways that would mitigate these negative effects and promote moral behavior in the marketplace.

Given that awe has an important role in activating consumers' moral identity, store atmospherics or visual displays can utilize awe-invoking imagery in order to increase morality in the marketplace. By increasing morality, marketers can be successful in curbing consumers' lying behavior that only benefits consumers (e.g. the return of used clothing; overstating the value of claims to insurance companies; Mazar and Ariely 2006). Since Study 1 successfully induced awe through a TV advertisement, awe-invoking content could be used through features of an advertisement or through pre-consumption experiences aiming to activate consumers' moral identity and reduce their lying to benefit themselves. For instance, these kinds of ads can be presented on the websites of companies (e.g. insurance companies) in which personal information is recorded in order to prevent consumers providing false information. Further, awe-evoking music could be played during phone calls with companies just before speaking with a representative in order to reduce consumers' engagement in lying. Also, awe-evoking imagery could be used in forms that are mailed to consumers to collect more accurate personal information.

In addition to awe's influence on moral identity and moral behavior, this research also shows awe's ability to increase prosocial lying. Previous research shows that prosocial lying bolsters social relations and helps to maintain relations in good condition (e.g. Iñiguez et al. 2014). So, the power of awe could be useful for enhancing community cohesion and increasing consumer well-being. Prosocial lies are considered necessary in

appropriate social circumstances. As previous research suggests, not all lies are socially destructive and there might be some conditions in which lying is crucial to maintain social interactions (Borsellino 2013; Iñiguez et al. 2014). Since previous research provides evidence that prosocial lying is perceived as moral and increases individuals' perceptions of morality, it might be worthwhile to stimulate people to engage in prosocial lying over antisocial lying with the aim of providing care and avoiding harm towards other people. Also, since engaging in prosocial lying increases one's well-being, this increased well-being might result in overall better behavior in the marketplace such as encouraging service employees' better connection with customers and could make it easier for employees to establish emotional connection with their customers.

This study opens a new research domain of awe in consumer behavior literature. Future research should focus on the impact of other discrete emotions (such as fear, gratitude) on consumers' moral behavior as well as on their moral consumption. Future research could also focus on exploring the influence of other emotions on prosocial lying. Also, if advertisements present a strong enough awe prime so that consumers' moral identities are activated, then future research should explore if this situation would generate the transfer of more positive perceptions or attitudes toward the brand.



## CHAPTER 4

### SHADES OF AWE: THE ROLE OF AWE IN PRO-ENVIRONMENTAL ATTITUDES AND PURCHASING BEHAVIOR

#### 4.1 Introduction

Environmental damage caused by consumption practices is detrimental. The problems related to consumption practices such as overconsumption and waste harm the environment more than ever before which requires immediate action (Wang et al. 2017). Even though there are some initiatives introduced by government organizations, policymakers and social agencies aiming to reduce and prevent environmental damage (e.g. United Nations Economic and Social Council 2016 presented seventeen Sustainable Development Goals for 2030), there is still a need for finding ways to provide messages that can be implemented and communicated more effectively (Wang et al. 2017).

So far, marketing researchers have used mass media communications (e.g. advertisements) to present prosocial messages hoping to result in behavior change (e.g. asking for donations right after presenting short ads), however the intensity and the strength of the emotions these messages evoke are the biggest limitations of these strategies (Schwartz and Loewenstein 2017). Previous research shows that emotions (e.g. guilt, worry, fear, hope; Wang et al. 2017) play an important role when environmental issues are at stake (Leiserowitz 2006). However, there are two important questions that need to be answered when the role of emotions is in question: which emotions (a) are considered as more intense and powerful than others, and (b) might be more effective to draw the attention to the social function of emotions (Stellar et al. 2017). These questions

are extremely important specifically for marketers and policymakers since the effectiveness of their interventions mostly based on the strength of their target emotion.

Prior research draws the attention to the distinction between self-transcendent emotions from other positive emotions. As Stellar et al. (2017) suggests, self-transcendent emotions—compassion, gratitude, and awe— encourages individuals to cooperate, coordinate and show their care during their interactions with others. Among these emotions, research shows that only awe shifts the attention from one's self to others which results in diminished self-concept (which is also referred as 'small self', Piff et al. 2015). Awe is a unique emotion that awe-inspiring events are considered as one of the fastest and most powerful tools for personal change and growth (Keltner and Haidt 2003). Feelings of awe also lead to positive evaluation of realities that one experiences other than the self (Van Cappellen and Saroglou 2012) which result in increased awareness and focus on the current moment (Valdesolo and Graham 2014). Therefore, awe is an emotion that has the potential to influence consumers to change their attitudes and concern about environment and take action accordingly.

Research on awe shows that awe can be triggered by nature, beauty, art, music, religion, and spirituality (Keltner and Haidt 2003; Piff et al. 2015; Shiota 2007). Feelings of awe makes people more attached to nature and to others as well as increase their desire to engage in prosocial behavior (Piff et al. 2015). As feelings of awe also result in diminished self-concept (Piff et al. 2015), individuals, who feel awe, understand that they are not at the center of the universe and there are many other things going around them which shifts the focus from the self to others and to nature (Shiota et al. 2007).

In this research, I predict that since awe makes people more attached to nature and to others around them (Shiota et al. 2007; Piff et al. 2015), feelings of awe will influence consumers' pro-environmental attitudes and behavior. I also propose that feelings of small self will mediate these proposed effects since small self shifts the focus from the self, triggers collective identity (Horberg et al. 2011) and increases one's engagement in prosocial behavior and attachment to nature (Piff et al. 2015). Additionally, since there are many different sources of awe (Keltner and Haidt 2003; Piff et al. 2015; Shiota 2007, Van-Cappellen and Saroglou 2012), I believe that it is valuable to explore the effects of different sources of awe on consumers' pro-environmental behavior. In this study, I explore the effects of three different sources of awe (awe of nature, awe of God, awe from man-made wonders) on consumers' pro-environmental behavior. By awe of nature, I refer to any awe-eliciting feelings resulting from nature. Awe of God indicates the feelings of awe from the relation between humans and their gods (Keltner and Haidt 2003). Finally, awe from man-made wonders refers to any awe-eliciting feeling resulting from man-made wonders (e.g. sculpture).

Given that one of the largest category of awe-elicitors is nature (Stellar et al. 2017) and the awareness of nature is highly associated with increased pro-environmental behavior (Kollmus and Agyeman 2002), I propose that awe of nature (vs. awe from man-made wonders) will increase consumers' desire to engage in pro-environmental behavior. Since previous research shows that awe of nature results in feelings of small self (Keltner and Haidt 2003), I expect that small self will mediate the relation between awe of nature and consumers' pro-environmental behavior. However, previous research related to awe

also suggests that feelings of awe can be highly related to a religious figure (e.g. God). Previous research shows that contact with a religious figure (e.g. God) elicits feelings of awe (Keltner and Haidt 2003). Also, individuals mostly see religious figures and anything created by them as being sacred and they tend to respect and aim to protect them (Pargament et al. 2005). Since these individuals see nature as a part of God's creation, I propose that awe of God will also have a similar effect as awe of nature, and feelings of awe elicited from God will result in increased consumer desire towards pro-environmental behavior.

## **4.2 Theoretical Background**

### **4.2.1 Awe, Pro-Environmental Attitudes and Behavior**

Marketing plays a vital role in preventing further environmental damage and has the power to contribute to the understanding of consumer motivation (Pagiaslis & Krontalis 2014). Examining pro-environmental consumers and motivating factors behind their consumption practices are still key issues for organizations, policy holders and marketers (e.g. Berger and Corbin 1992; Iyer and Kashyap 2007; Kim 2011). However, even though number of consumers claiming to have higher pro-environmental attitudes and engage in pro-environmental behavior has been on the rise (Pagiaslis & Krontalis 2014), environmental problems such as global warming still raise concerns among the society and have detrimental effects on environmental preservation (Pierce et al. 2009).

There are also numerous theoretical frameworks showing the gap between

consumers' reported willingness to engage in pro-environmental behavior and adoption of environmental attitudes, and their actual behavior (Kollmuss and Agyeman 2002). Therefore, as Prothero et al. (2011) emphasizes, different policies and strategies are necessary aiming to encourage consumers to engage in pro-environmental behavior. Additionally, there is more need for research in order to understand and identify motivating factors behind consumers' pro-environmental behaviors in the marketplace.

Prosocial behaviors (e.g. pro-environmental behaviors such as recycling) are not automatic, instead psychological and situational triggers (e.g. emotions) play roles in their activation (de Waal 1992). As previous research shows, emotions play an important role in shaping consumer judgment and decision making (Han et al. 2007; Carrus et al. 2008) and they are considered as strong motivators of one's behavior (Schwartz and Loewenstein 2017). However, a significant number of research mostly focuses on the roles of beliefs, values and culture (Peattie 2010; Kaplan-Oz and Iyer 2017) rather than exploring the role of discrete emotions in influencing pro-environmental attitudes and behaviors.

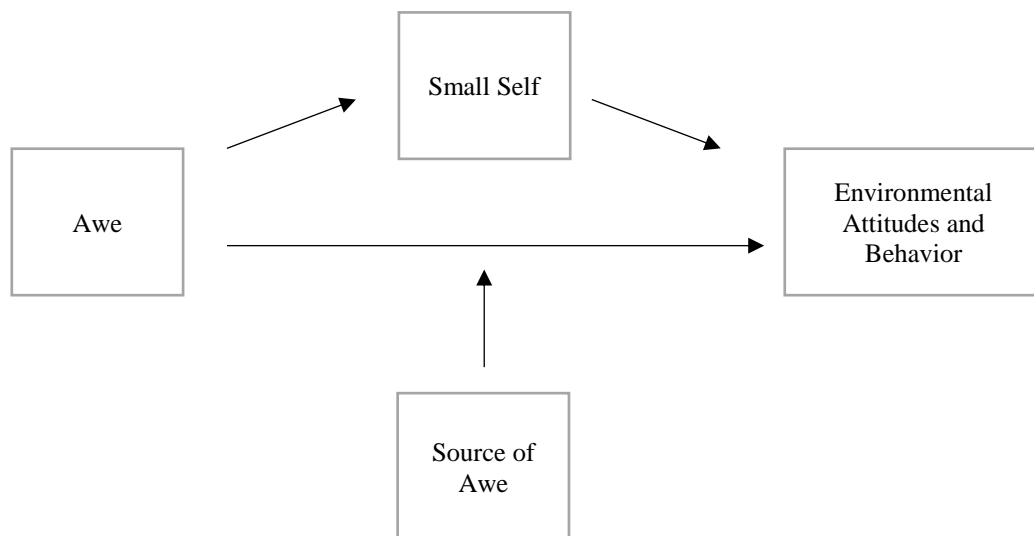
One emotion that could motivate consumers and encourage them to engage in pro-environmental behaviors by increasing consumers' feelings of connectedness to nature and encouraging their prosocial behaviors is "awe". Awe is a unique emotion that triggers small self (diminished) self-concept (Keltner and Haidt 2003). The idea of small self results in an increased attachment to nature (Piff et al. 2015) and shifts one's focus from the self to others by triggering collective identity (Shiota et al. 2007). Overall,

awe helps individuals to change their perceptions of the self and encourages them to focus more on nature and other oriented behavior (Piff et al. 2015).

Given awe’s impact on individuals’ well-being (Keltner and Haidt 2003), sense of connectedness to nature (Shiota et al. 2007) and greater prosocial behavior (Piff et al. 2015), I propose that awe might also impact consumers’ environmental attitudes and behavior. I expect that feelings of awe will increase consumers’ pro-environmental attitudes and will encourage them to engage in pro-environmental behavior. I also propose that since feelings of small self play an important role in triggering one’s attachment to nature (Piff et al. 2015), small self will serve as a mediator in the proposed model (see Figure 4.1). More specifically,

H<sub>1</sub>: Consumers feeling awe (vs. neutral condition) have stronger environmental attitudes and behavior.

H<sub>2</sub>: The positive effect of awe on environmental attitudes and behavior is mediated by feelings of small self.



**Figure 4.1 Conceptual Framework 1**

#### **4.2.2 Different sources of Awe and Pro-Environmental Behavior**

Previous research shows that there are many events or objects that people experience awe such as a glamorous sunset or a night sky, a work of art or humans' relation with God (Keltner and Haidt 2003, Shiota et al. 2007). Since people can feel awe from many different sources, in this study, I also explore the role of different sources of awe (awe of nature, awe of God, and awe from man-made wonders) on consumers' pro-environmental behaviors. I propose that awe of nature and awe of God will be the most powerful factors that will influence consumers' desire to engage in pro-environmental behavior.

Awe of nature (e.g. mountains, vistas, oceans) is considered as the most common source of awe especially in Western societies (Keltner and Haidt 2003). Previous research mostly refers to awe-eliciting nature-related objects that are vast in comparison to the self (e.g. waves, waterfalls) and suggesting that feelings elicited from awe of nature leads to "the perception of greatness outside the self, rather than self-focused or self-enhancing" (Shiota et al. 2007, p. 946). Van Cappellen and Saroglu (2012) studied the effects of nature-related sources of awe and found that feelings elicited from awe of nature are more likely to connect individuals with humankind, the world and the life. Building on that, I expect that consumers who feel awe of nature will be more likely to be attached to nature and will have an increased desire to protect and take care of the environment. In addition to that, since feelings of awe of nature results in small self (Keltner and Haidt 2003) and this feeling encourages individuals'

attachment to nature (Shiota et al. 2007; Piff et al. 2015), I also explore the mediating role of small self between the relation of awe of nature and pro-environmental behavior.

Additionally, I expect a similar finding for the ones who feel awe from sources related to God. Positive effects of religious feelings and attachment to God on pro-environmental behavior have been widely studied in the field of marketing and psychology (Gifford and Nilsson 2014). Previous research also shows that religion is highly associated with increased prosocial behavior (Norenzayan and Shariff 2008; Wilson 2002). In addition to that, research shows a strong association for the relationship between humans, their gods and feelings of awe (Keltner and Haidt 2003). For instance, places of worships such as temples, mosques and cathedrals are areas that are strong elicitors of awe (Francis et al. 2008). Moreover, the idea of protecting the nature and environmental stewardship is rooted in the belief that nature is special and sacred, therefore it should be respected because it was created by god (Pargament et al. 2005).

Thus, I propose the following:

H<sub>3</sub>: Consumers feeling (a) awe of nature and (b) awe of God (vs. awe from man-made wonders) have stronger environmental attitudes and behavior.



## **4.3 Studies**

### **4.3.1 Study 1**

In this study, I aim to test the effect of awe on consumers' environmental attitudes and behavior as well as examine the role of small self as a mediator in the proposed model. In this study, I focus on consumers' environmental concern and desire to protect the environment while measuring their environmental attitudes and behavior.

#### **4.3.1.1 Method**

##### **4.3.1.1.1 Sample**

One hundred and fourteen US adults from Amazon Mechanical Turk participated in the study. Prior research suggests Mturk is a reliable participant pool (Goodman et al. 2013) and is considered as a trustworthy source of participants for psychological and marketing experiments (Mason and Suri 2012). I excluded fourteen participants who took the study less than three minutes or who spent more than thirty-five minutes to complete the study (the average completion time was 10.2 minutes). Additionally, six participants were excluded who guessed the research objective and one participant was excluded who failed the attention check. This data cleaning process resulted in ninety-three participants in total (approximately 46 participants per cell; 52.1% female;  $M_{age}=39.85$ , range:21-76,  $SD= 12.07$ ; 75.5% Caucasian, 6.4% African/American, 6.4% Hispanic, 8.5% Asian, 3.2% other).

#### 4.3.1.1.2 Materials, design and procedure

The study used a one-factor (emotion: awe, neutral) between-subjects design. Participants were told that they would be taking part in a study on “consumer feelings, values, and behaviors”. Participants were shown either the awe-eliciting 60-s video that includes nature scenes or the neutral video that has abstract images (same emotion manipulation that is used in Chapter 2-Studies 2 and 3 and Chapter 3-Studies 2a,3,4), and then answered questions about environmental concern and protection (short-version, 3- items scale from Fraj and Martinez 2006,  $\alpha=.90$ ) and small self (7-items scale from Shiota et al. 2007,  $\alpha=.82$ ; see Appendix C for items). Participants then rated the extent to which they experienced 9 different emotions (1= Not at all, 7= Very Much): anger, awe, disgust, happiness, pride, sadness, fear, joy and excitement. Finally, participants provided demographic information.

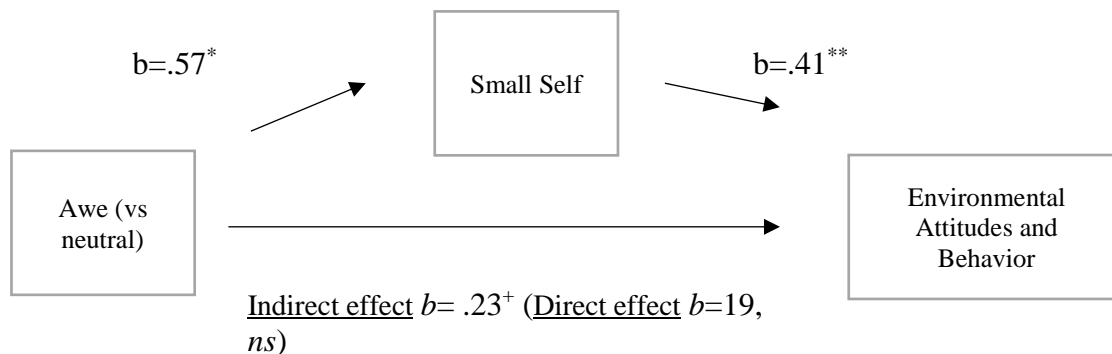
#### 4.3.1.2 Results

*Manipulation check.* Emotion measures in the study indicated that the ones in the awe condition were higher in their reports of awe in comparison to the ones in the neutral condition ( $M_{awe}= 4.88$ ,  $M_{neutral}= 2.12$ ,  $p<.01$ ). However, in addition to awe, pride and joy were also significant ( $p<.1$ ), so I controlled for these ancillary emotions in my analysis. I also controlled for age, education and income since prior research showed that these factors are associated with consumers’ desires towards environmental-friendly behavior (e.g. Balderjahn 1988).

*Environmental attitudes and behavior.* I tested whether emotion condition influenced consumers' environmental concern and protection. An ANCOVA revealed a marginally significant effect of awe on consumers' environmental concern ( $F(1, 86) = 2.99, \eta^2 = .19, p = .087$ ). Consistent with my expectation, those who saw the awe-eliciting video reported higher levels of environmental concern and desire for protection than those in the neutral condition ( $M_{awe} = 5.14, M_{neutral} = 4.92$ ), supporting H<sub>1</sub>. In terms of the covariates, pride is marginally significant ( $p = .06$ ) where joy is not ( $p > .1$ ) and joy were not statistically significant ( $p > .05$ ).

In order to be confident that the increase in consumers' environmental concern and protection is due to awe and not pride, I regressed pride (measured) on consumers' environmental concern. However, the effect of pride (measured) was not significant ( $p > .1$ ).

*Mediation analysis.* To further test the underlying process in my conceptual framework, I conducted a mediation analysis with small self as a mediator. I tested the proposed mediating effect using the PROCESS macro for SPSS (Hayes 2013). In this model the independent variable was emotion condition (awe vs. neutral), the mediator was small self, the dependent variable was environmental concern and protection, and the control variables are pride, joy, income, age and education. Bootstrapping analysis with 5,000 resamples excluded zero for the proposed indirect mediation path (effect = .2376, 95% confidence interval: .0532 to .5255; see Figure 4.2). These results support my hypothesis, showing that small self fully mediates the relation between awe and consumers' environmental concern and protection which supports H<sub>2</sub>.



**Figure 4.2: Mediation Analysis**

*Unstandardized coefficients are displayed. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , +  $p < .1$*

#### 4.3.1.3 Discussion

With this study, I tested the effect of awe on consumers' environmental attitudes and behavior by measuring consumers' environmental concern and desire for protecting the environment. Consistent with my first hypothesis, this study provides initial evidence that feelings of awe increases consumers' environmental concern and protection for environment. In addition, my findings suggest that feelings of small self mediated the relation between awe and consumers' environmental concern and protection which supports my second hypothesis.

#### 4.3.2 Study 2

My purpose in this study is to replicate and extend my findings from Study 1 in several ways. First of all, I use a different emotion manipulation by asking participants to write about their recent experience about the target emotion rather than asking them

to watch a short clip like I did in Study 1. Secondly, I focus on another relevant outcome, that is, consumers' environmental values, which is a construct that is still linked to consumers' environmental attitudes and behavior but measuring these less directly instead of focusing on the actual behavior. Overall, in this study, I aim to test the effect of awe on consumers' environmental attitudes and behavior as well as test the role of small self as a mediator in the proposed model.

#### **4.3.2.1 Method**

##### **4.3.2.1.1 Sample**

Fifty-six US adults from Amazon Mechanical Turk participated in the study (approximately 28 participants per cell; 61% female;  $M_{age}=41.5$ , range:26-61,  $SD= 9.88$ ; 81.4% Caucasian, 5.1% African/American, 5.1% Hispanic, 5.1% Asian, 3.4% other).

##### **4.3.2.1.2 Materials, design and procedure**

The study used a one-factor (emotion: awe, neutral) between-subjects design. Participants were told that they would be taking part in a study on "consumer feelings, values, and behaviors". Participants were randomly assigned to one of two narrative recall conditions to induce the target emotion by asking them to recall a recent experience that is a prototypical elicitor of the target emotion (either awe or neutral). Then they answered questions about environmental values (7- items scale from taken from Iyer & Kashyap 2009,  $\alpha=.67$ ) and small self (7-items scale from Shiota et al. 2007,

$\alpha=.82$ ; see Appendix C for the full list of items). Finally, participants provided demographic information.

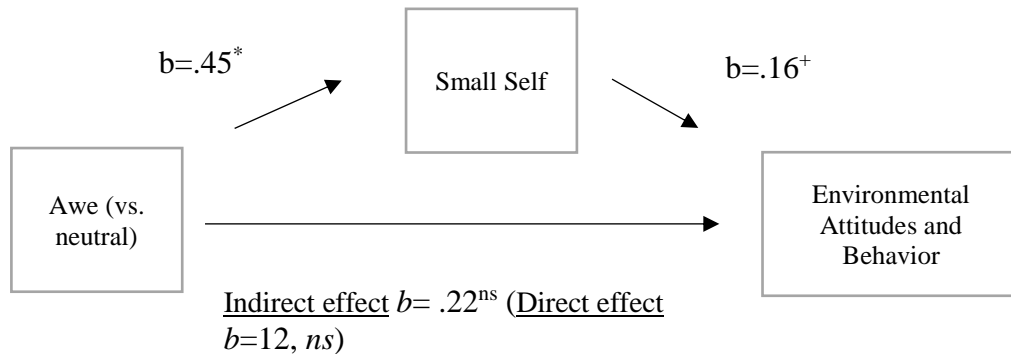
#### 4.3.2.2 Results

*Manipulation check.* Emotion measures in the study indicated that the ones in the awe condition were higher in their reports of awe in comparison to the ones in the neutral condition ( $M_{awe}= 6.19, M_{neutral}= 2.64, p<.001$ ). However, in addition to awe, anger, happiness, disgust and peace were also significant ( $p<.05$ ), so I controlled for these ancillary emotions in our analysis. Consistent with Study 1, I also controlled for age, education and income in our analysis.

*Environmental attitudes and behavior.* I tested whether emotion condition influenced consumers' environmental values. An ANCOVA did not reveal a significant effect of awe on consumers' environmental attitudes ( $F(1,47) = .182, p>.5$ ) although the means are in the expected direction ( $M_{awe} = 4.30, M_{neutral} = 4.13$ ), not supporting  $H_1$ . In terms of the covariates, none of them were statistically significant ( $p > .1$ ).

*Mediation analysis.* To further test the underlying process in my conceptual framework, I conducted a mediation analysis with small self as a mediator. I tested the proposed mediating effect using the PROCESS macro for SPSS (Hayes 2013). In this model the independent variable was emotion condition (awe vs. neutral), the mediator was small self and the dependent variable was environmental values. Bootstrapping analysis with 5,000 resamples excluded zero for the proposed indirect mediation path (effect= .1811, 95% confidence interval: .0131 to .4733; see Figure 4.3). These results

support my hypothesis, showing that small self mediates the relation between awe and consumers' environmental values, supporting H<sub>2</sub>.



**Figure 4.3: Mediation Analysis**

*Unstandardized coefficients are displayed. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , +  $p < .1$*

#### 4.3.2.3 Discussion

This study tested the role of awe on consumers' environmental attitudes and behavior. Even though the means are in the expected direction, the direct effect of awe on consumers' environmental values did not provide significant results. However, when I tested the role of small self as a mediator in this proposed relationship, small self successfully mediates the relation between awe and consumers' environmental values. Therefore, this study shows the underlying process that small self serves as a mediator between feelings of awe and consumers' environmental attitudes.

#### 4.3.3 Study 3

In this study, I aim to test the effect of awe on consumers' pro-environmental behavior as well as testing the role of small self as a mediator in the proposed model.

However, this time I distinguished between three kinds of awe: awe of nature, awe of

God, awe from man-made wonders. I believe that these three emotional experiences, despite their strong similarities, differ in some ways (Keltner and Haidt 2003; Saroglou et al. 2008; Van Cappellen and Saroglou 2012) and they might have different effects on consumers' pro-environmental behavior.

#### **4.3.3.1 Method**

##### **4.3.3.1.1 Sample**

Two hundred and eighty-three undergraduate students (48% female) from a large public university received extra course credit for their participation. I excluded forty-one participants who completed the study less than four minutes or who spent more than thirty-five minutes (the average completion time was 13.26 minutes). I also excluded six participants who guessed the research objective and twenty-six participants who failed the attention checks (3 attention checks in total). Finally, I excluded thirty-five participants who did not write about the target emotion in the writing task. This data cleaning process resulted in one-hundred and seventy-five participants in total (approximately 58 participants per cell).

##### **4.3.3.1.2 Materials, design and procedure**

The study used a one factor (emotion: awe of nature, awe of God, awe of man-made things) between-subjects design. Participants were asked to recall a recent experience where they felt awe (the description of awe was different based on the conditions).



#### Awe of Nature:

Please take a few minutes to think about a particular time, fairly recently, when you encountered a natural scene that caused you to feel awe. This might have been a sunset, a view from a high place, or any other time you were in a natural setting that you felt was beautiful.

#### Awe of God:

Please take a few minutes to think about a particular time, fairly recently, when you thought about a supernatural or divine being (e.g. God) that caused you to feel awe. This might have been thinking about supernatural control such as the order in the universe or any other time you were thinking about a supernatural phenomenon.

#### Awe from Man-Made Wonders:

Please take a few minutes and recall a fairly recent experience when you felt awe. This might have been an art work (e.g. sculpture), music, or any other time you were thinking about a man-made thing that made you feel awe.

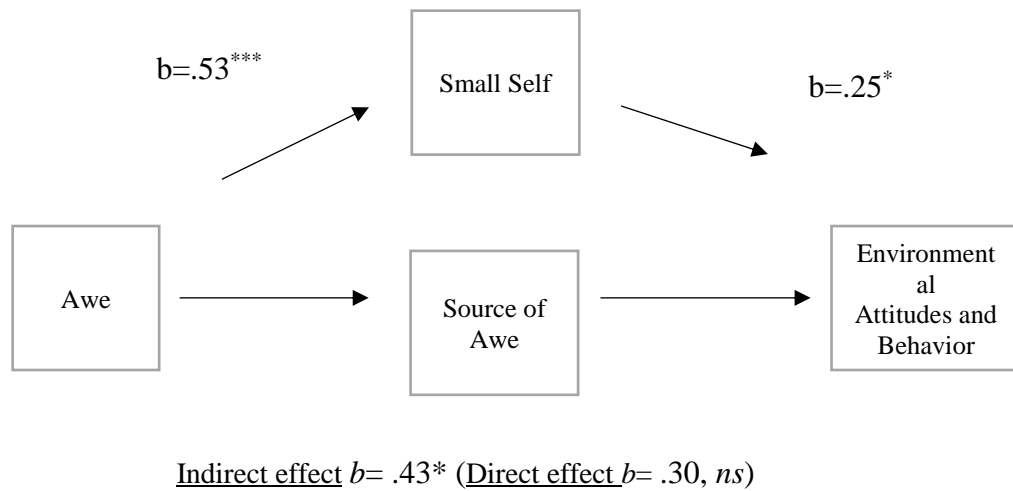
After the emotion induction, participants answered questions regarding their pro-environmental purchasing behavior (5-items scale from Schlegelmilch et al. 1996,  $\alpha=.82$ ; see Appendix C for items) and small self (Shiota et al. 2007). Then participants provided demographic information.

#### **4.3.3.2 Results**

*Environmental Attitudes and Behavior.* First I conducted one-way ANOVA and the results revealed significant differences between emotion conditions (awe-of-nature, awe of God, awe-from-manmade-wonders), ( $F(2, 172) = 3.51, p < .05$ ). Consistent with

my expectations, post hoc tests showed there were significant differences and those experiencing awe-of-nature and awe-of-God reported higher levels of pro-environmental behavior ( $M_{\text{awe\_of\_nature}} = 5.42$ ,  $M_{\text{awe\_of\_god}} = 5.46$ ,  $p=.05$ ) than those in the awe-from-manmade wonders' condition ( $M_{\text{awe\_manmade\_wonders}} = 4.98$ ), supporting H<sub>3</sub>. No significant differences were found for the comparison between awe of nature and awe of God ( $p>.8$ ).

*Mediation analysis.* First, I analyzed the role of small self as a mediator between awe of nature and awe from man-made wonders. I conducted a mediation analysis using the PROCESS macro for SPSS (Hayes 2013). In this model the independent variable was emotion condition (awe of nature vs. awe from man-made wonders), the mediator was small self, the dependent variable was pro-environmental behavior. Bootstrapping analysis with 5,000 resamples excluded zero for the proposed indirect mediation path (effect= .1330, 95% confidence interval: .0319 to .2992; see Figure 4.4). These results support my hypothesis (H<sub>2</sub>), showing that small self fully mediates the relation between awe and consumers' environmental concern and desire for protection.



**Figure 4.4: Mediation Analysis**

*Unstandardized coefficients are displayed. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , +  $p < .1$*

Even though I did not expect that small self would serve as a mediator between awe of God (vs. awe from man-made wonders) and pro-environmental behavior, aiming to show this, I conducted another mediation analysis. In this model the independent variable was emotion condition (awe of God vs. awe from man-made wonders), the mediator was small self and the dependent variable was pro-environmental behavior. As expected, bootstrapping analysis with 5,000 resamples did not exclude zero for the proposed indirect mediation path (confidence interval: -.0741 to .0471).

#### 4.3.3.3 Discussion

This study explores the effect of different sources of awe on consumers' pro-environmental behavior. Results show that those who felt awe from nature are more likely to engage in pro-environmental behavior in comparison to those that felt awe

from man-made wonders. As I hypothesized, this effect appears to occur because feelings of awe from nature-related sources triggers a sense of something greater than oneself, leading to higher 'small self' rating (cf., Keltner and Haidt 2003; Shiota et al. 2007; Piff et al. 2015). This feeling of small self then mediated participants' tendencies to engage in pro-environmental behavior, only for those who felt awe from sources related to nature, but not for the ones who feel awe from religious sources (awe of God). The possible explanation of this finding could be the fact that the underlying mechanism that drives the effect between awe and awe of God might be one's respect and admiration to God's creations and willingness to protect them rather than small self. In future studies, I would like to test this possibility and explore the underlying mechanism, a possible mediator different than small self between awe of God and pro-environmental behavior.

#### **4.4 General Discussion**

Even though most of the time consumers prefer to hold governments or industries responsible for environmental damage, research shows that consumers' attitudes and behaviors play a huge role in environmental degradation, especially in Western societies (Ivanova et al. 2016). Therefore, it is necessary to find ways that can change consumers' current lifestyle and consumption patterns. Previous research has been very active in terms of exploring factors that can motivate consumers' environmentally friendly attitudes and purchasing behavior (Irwin 1999; Kilbourne and Beckmann 1988; Martens and Spaargaren 2005, Prothero et al. 2011). However, in

doing so, a significant amount of research focuses on ethical consumption (Irwin 1999) and the effects of culture (Kim 2011), attitudes, socioeconomic characteristics and living conditions (Tanner and Wolfing 2003) rather than focusing on the role of emotions which play an important role in shaping consumers' behaviors and judgments (Han et al. 2014; Carrus et al. 2008). In this research, I focus on the role of emotions (specifically awe), which is an area that received less attention while studying pro-environmental attitudes and behavior. More specifically, in this research, I explore the role of awe on consumers' environmentally friendly attitudes and behavior. I also focus my inquiry on different sources of awe, since previous research shows that different sources of awe might have distinct effects on behaviors (Van Cappellen and Saroglou 2012). I also analyze the role of small self in my proposed models given its high association with nature-related sources of awe (Keltner and Haidt 2003; Piff et al. 2015).

I find that awe, one of the major self-transcendent emotions, awe, successfully increases environmental attitudes and encourage consumers to engage in pro-environmental behavior. More specifically, in Study 1, I tested the role of awe on consumers' concern and desire for protection of the environment, at the same time, also testing for the role of small self in the proposed model. The results show that feelings of awe increases consumers' environmental concern and desire for protection of the environment. This study also shows that this effect is mediated by feelings of small self. Study 2 explores the impact of awe on consumers' environmental values. The results show that participants in the awe condition are more likely to have stronger

values towards environment rather the participants in the neutral condition, however this effect is significant only through the mediating role of small self.

Study 3 explores the role of different sources of awe on consumers' pro-environmental behavior. I found that consumers' feeling awe from nature-related or God-related sources are more likely to engage in pro-environmental behavior, but not the consumers who feel awe from man-made wonders. This study also shows the mediating role of small self between feelings of nature-related sources of awe and consumers' pro-environmental behavior. However, as expected, this mediation was not significant for the ones who feel awe from God-related sources.

#### **4.5 Theoretical Contributions**

I believe that this work makes several important contributions. Prior research has mainly focused on identifying reasons or explore possible motivators (e.g. culture, socioeconomic characteristics and living conditions; Kim 2011; Tanner and Wolfing 2003) that lead consumers to develop environmental attitudes or to engage in pro-environmental behavior (Pagiaslis & Krontalis 2014). However, these previous works were less likely to focus on the role of emotions which plays an important role in shaping consumers' judgments and decision-making (Han et al. 2007). Given the significant role of emotions on consumer behavior, current research explores the role of a less studied and a relatively new emotion, awe, in consumers' pro-environmental attitudes and behavior. Additionally, this study also explores the role of different sources of awe in consumers' pro-environmental behavior. By doing so, to my

knowledge, this study is the first to show the effect of awe on consumers' environmental attitudes and pro-environmental behavior. Also, this study is the first study that explores the role of different sources of awe in consumers' pro-environmental behavior. Therefore, this research contributes to the literature related to environmental attitudes and pro-environmental behavior. This research also contributes to the emotion literature in consumer research by showing the effect of a powerful emotion, awe, in increasing consumers' environmental attitudes and behavior. This study also contributes to the awe literature and extend this relatively new and less studied area by exploring the effects of different sources of awe on consumers' pro-environmental behavior.

#### **4.6 Managerial Contributions and Future Research**

Given awe's positive impact on pro-environmental behavior, this research offers various managerial implications that will enhance and promote pro-environmental behavior in the marketplace. First of all, this research shows the positive effect of a less-studied self-transcendent emotion in consumer behavior field and introduces this new emerging emotion to marketers, practitioners and policy-makers. Features of awe of nature or awe from God-related sources can be used in advertisements, public messages or print-outs aiming to increase environmental concern and protection, encourage the development of strong environmental attitudes as well as enhance pro-environmental purchase behavior. Secondly, these features can be used during educational interventions (e.g. schools) to increase the effectiveness of the targeted

messages. Lastly, awe-eliciting messages (eliciting from nature or God but not from man-made wonders) might be used by activist companies (e.g. Patagonia) or by environmental campaigns (e.g. Greenpeace) that targets reducing environmental damage. Additionally, since this study shows the mediating role of small self in three different studies, messages can include the features related to the 'small self' aiming to increase the effectiveness and the strength of the outcome.

Future research could compare the effect of awe with a different positive emotion (e.g. pride) and try to show that this positive effect is not generalizable to all positive emotions but it is the unique effect of awe. Also, future research might explore the underlying mechanism that drive the effect of awe eliciting from God-related sources on pro-environmental behavior. It might be one's respect and admiration to God and desire to protect God's creation but of course this assumption needs further testing.



## CHAPTER 5

### GENERAL DISCUSSION

#### 5.1 General Discussion

Together three essays demonstrate that awe plays an important role in increasing consumer well-being. My first essay focuses on the effect of awe on materialist values. Results from three studies show that feeling of awe reduces consumers' materialist values and encourages consumers to choose experiences over material possessions. In addition to that, consumers' desire towards experiences over material products is triggered by feelings of small self which shift one's attention from the self to others by encouraging people to be more attached to nature and to other people around them instead of focusing on their self-concerns (Shiota et al. 2007; Piff et al. 2015). In essay 2, I explore the role of awe in consumers' morality and lying behavior. In four studies, the results show that awe plays an important role in triggering consumers' moral identity and encouraging consumers' desire to engage in moral behavior through triggered small self and moral identity. Ironically, at the same time, the results reveal that awe increases consumers' propensity to engage in prosocial lying aiming to help and benefit others. In Essay 3, I examine the role of awe in consumers' pro-environmental attitudes and behavior. In three experiments, I show that feelings of awe increase consumers' pro-environmental attitudes and behavior. I explore the underlying mechanisms behind this relation and find that feelings of small self serve as a mediator in my proposed model. This essay also explores the effects of different sources of awe on consumers' pro-environmental behavior. The results show that induction of

awe eliciting from nature-related sources and God-related sources increases consumers' engagement in pro-environmental behavior but not the induction of awe from man-made wonders. I also test the role of small self as a mediator in this proposed model and the results shows the significant mediating role of small self between feelings of nature-related sources of awe and consumers' pro-environmental behavior. However, as expected, small self does not mediate the relation between awe from God-related sources and consumers' pro-environmental behavior.

Overall, the main purpose of this dissertation is to understand the role of awe in increasing consumer well-being. The results show that awe plays an important role in reducing consumers' negative experiences, and at the same time, encouraging them to engage in positive ones. Consumers' materialist values have many negative impacts on consumers both physically (e.g. more negative physical symptoms; Kasser 2003), psychologically (e.g. loneliness; Pieters 2013) and financially (e.g. debt; Gregoire 2013). Similar to that, immoral behavior has negative consequences in the marketplace (e.g. financial: losses of hundreds of thousands of investments, tax revenues; social: lower well-being of consumers, organizations and society at large; Komarova- Loureiro et al. 2016). Finally, lack of pro-environmental attitudes and behavior in the marketplace harm the universe and have detrimental environmental consequences (Wang et al. 2017). Therefore, as the results suggest, this dissertation shows the significant role of awe in reducing consumers' materialist values, triggering their moral identity and encouraging them to engage in moral behavior, and increasing consumers desire to adopt higher pro-environmental attitudes and behavior.

## 5.2 Theoretical and Managerial Contributions

This dissertation has important theoretical and managerial implications. First of all, this dissertation offers an integrated approach for understanding the role of a positive emotion –awe- in increasing consumer well-being. The results show that awe can improve consumers' well-being through reducing their negative consumption practices and increasing positive ones. Even though previous research (mostly from psychology) shows the various positive effects of awe on individuals (e.g. connection to nature and increased well-being, Shiota et al. 2007; increased generosity and prosocial behavior, Piff et al. 2015; being humble, Steller et al. 2017), little research has examined the impact of this powerful emotion on consumption practices. Since finding ways to improve consumers' well-being by reducing their negative practices offer many positive consequences in the marketplace and has been an area of interest for a long time (e.g. Chaplin et al. 2014), this dissertation contributes to existing research that aims to enhance and transform consumers' lives by showing the positive effect of awe on reducing consumers' negative consumption practices (materialist values, lying behavior) and increases the positive ones (morality, pro-environmental attitudes and behavior).

At the same time, focusing on the role of discrete emotions in reducing consumers' negative practices and increasing positive ones have been a neglected area in consumer research. Previous research mostly studies the role of positive or negative emotions in consumption practices without differentiating among different emotions of similar valence. However, there is growing evidence that not all positive or negative emotions are the same, and they might have different effects on consumption practices

(e.g. Griskevicius et al. 2010; Cavanaugh et al. 2015). Therefore, it is worthwhile to focus on the role of discrete emotions in consumption practices aiming to enhance consumer lives. Additionally, this dissertation contributes to the emotion literature in consumer research by further understanding the discrete effects of awe on consumption experiences.

This dissertation also contributes to the literature on materialism by introducing awe as a powerful emotion that reduces consumers' materialist values. Previous research mostly focuses on the negative effects of having higher levels of materialist values on consumers (e.g. Pieters 2013), instead of focusing on the role of emotions in reducing consumers' materialist values. Additionally, this dissertation contributes to the consumer morality literature by showing the positive role of awe in triggering moral identity and encouraging consumers to engage in moral behavior. This research is also one of the first studies that explores the impact of awe on consumers' lying behavior. Therefore, this dissertation also contributes to consumers' lying behavior literature by analyzing the role of awe in consumers' antisocial and prosocial lying behavior which has been a neglected area in consumer research. Lastly, this dissertation expands on the consumers' pro-environmental attitudes and behavior literature by identifying an effective emotion, awe, in increasing consumers' pro-environmental attitudes and behavior. Even though there has been an ongoing research stream about finding ways that can enhance consumers' pro-environmental attitudes and behavior, this type of consumption practices is still limited in the marketplace which raises a question about the effectiveness of the current marketing strategies (Prothero et al. 2011). This

research contributes to the existing literature by showing the positive effects of awe on consumers' pro-environmental attitudes and behavior. By doing so, this research draws the attention to the importance of emotions in shaping consumers' judgments and behaviors (Han et al. 2007).

Managerially, this dissertation offers ways to change consumers' negative behavior and improve positive ones in the marketplace. First of all, this dissertation shows that awe can be elicited through a TV advertisement and can reduce consumers' materialist values. Therefore, marketers and policy makers can induce awe via advertisements, especially during shows that target children and low-income families which are considered as the most vulnerable population that might develop materialist values (Chaplin et al. 2014). Features of awe can also be used during public service announcements and educational programs aiming to reduce consumers' materialist values and encourage them to prefer experiences over material possessions. Other than that, awe-inducing music or images could be used as an intervention by authorities aiming to reduce consumers' materialist values among the society.

Secondly, awe-invoking music or images could be used in stores' atmospherics aiming to increase consumers' morality in the marketplace. By doing so, marketers can prevent consumers from engaging in lying behavior that only benefits themselves (e.g. the return of used clothing, Mazar and Ariely 2006). Also, images or videos that elicit awe could be presented on company's websites or during phone calls aiming to get accurate personal information from consumers. This dissertation also shows that feelings of awe increase consumers' engagement in prosocial lying with the aim of

benefitting others. Since prosocial lying bolsters social relations and helps to maintain relations in good condition (e.g. Iñiguez et al. 2014), this effect of awe could be used to encourage consumers to engage in prosocial lying with the aim of showing their care and avoiding harm towards other people.

Additionally, since this dissertation shows that awe is an effective emotion to increase consumers' pro-environmental attitudes and behavior, features of awe can be used in areas where there is a need to enhance pro-environmental attitudes (e.g. at the time of recycling or during the ads of environmental charities asking for donations to protect the environment). With the power of awe, consumers can be encouraged to increase their effort to protect the environment which will eventually decrease the negative consequences of consumption practices on our planet. Awe invoking imagery or music could also be used during campaigns or educational programs that target to enhance pro-environmental attitudes. This dissertation also shows that different sources of awe can have different effects on consumers' consumption practices. Therefore, consistent with the findings of this dissertation, features of nature-related or God-related sources of awe can be used at advertisements or campaigns that aim to enhance pro-environmental behavior. Nature or God-related awe-eliciting imagery, music or videos could be used by environmental charities such as Green Peace or Sierra Club aiming to increase consumer awareness and donations to protect the environment. Also, companies like Patagonia might use nature or God-related features of awe in their advertisements or with images in their stores to attract more environmentally friendly consumers.

Lastly, this dissertation shows that small self plays an important role in strengthening the effects of awe on various different consumer behaviors (reduced material values, moral behavior, pro-environmental attitudes and behavior). Therefore, marketers can use the concept of small self and promote its common features (e.g. shifting the focus from the self to others, increased attachment to nature and to other people) in their messages aiming to encourage positive consumption practices and reduce the negative ones in the marketplace.

## APPENDIX A

### MATERIALS FOR ESSAY 1

#### A.1 Study 1

##### A.1.1 Measures

The Material Values Scale (taken from Richins 2004)

- 1- I admire people who own expensive homes, cars, and clothes.
- 2- Some of the most important achievements in life include acquiring material possessions.
- 3- I don't place much emphasis on the amount of material objects people own as a sign of success. (R)
- 4- The things I own say a lot about how well I'm doing in life.
- 5- I like to own things that impress people.
- 6- I don't pay much attention to the material objects other people own. (R)
- 7- I usually buy only the things I need. (R)
- 8- I try to keep my life simple, as far as possessions are concerned. (R)
- 9- The things I own aren't all that important to me. (R)
- 10- I enjoy spending money on things that aren't practical.
- 11- Buying things gives me a lot of pleasure.
- 12- I like a lot of luxury in my life.
- 13- I put less emphasis on material things than most people I know. (R)
- 14- I have all the things I really need to enjoy life. (R)
- 15- My life would be better if I owned certain things I don't have.
- 16- I wouldn't be any happier if I owned nicer things. (R)
- 17- I'd be happier if I could afford to buy more things.
- 18- It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.

#### A.2 Study 2

##### A.2.1 Measures

Small Self Scale (taken from Shiota et al. 2007)

- 1- I felt the presence of something greater than myself.
- 2- I felt small or insignificant.
- 3- I was unaware of my day-to-day concerns.
- 4- I felt closely connected to the world around me.



- 5- I did not want the experience to end.
- 6- I was aware of my personal values.
- 7- I felt closely connected to my culture.

## APPENDIX B

### MATERIALS FOR ESSAY 2

#### B.1 Study 1

Small Self Scale (taken from Shiota et al. 2007)

- 1- I felt the presence of something greater than myself.
- 2- I felt small or insignificant.
- 3- I was unaware of my day-to-day concerns.
- 4- I felt closely connected to the world around me.
- 5- I did not want the experience to end.
- 6- I was aware of my personal values.
- 7- I felt closely connected to my culture.

#### B.2 Study 2a and 2b

##### B.2.1 Measures

Lying Tendencies Survey (taken from Mann et al. 2014)

##### 1. Antisocial commission:

- 1) If you are late for a meeting, how likely are you to invent an excuse (such as bad traffic), when in fact it was your fault?
- 2) At a party, how likely are you to tell stories about yourself that never happened, in order to sound more interesting?
- 3) During a job interview, how likely are you to describe a previous work experience that never happened?
- 4) How likely to tell a police officer that you were speeding due to an emergency, when there is no real emergency?

##### 2. Prosocial commission:

- 1) How likely are you to tell your friend that her birthday party was lovely, when you know everybody was bored at it?
- 2) How likely are you to say that you loved a gift from a relative, even though it is a useless item?
- 3) You are invited to a party you do not want to attend. If the host asks you whether you will be coming, how likely are you to pretend that you have a prior commitment that night (when you do not)?
- 4) If your boss asks why your colleague is not at work, how likely are you to say that they are sick, when you know that they are taking a day off?

3. Antisocial omission:

- 1) During an interview, how likely are you to keep quiet about lacking a particular skill that is expected for the job?
- 2) If you are given too much change at the grocery store, how likely are you to keep your mouth shut?
- 3) If your boss praises you for putting in extra hours to finish a project, how likely are you to keep to yourself that you found a quick way to do the job?
- 4) If you had romantic relations with a friend's ex-partner, how likely would you be to keep this information to yourself?

4. Prosocial omission:

- 1) If your boss praises a colleague for their work on a group project when this colleague did not actually contribute, how likely are you to keep quiet about the colleague's true contributions?
- 2) If you witness your friend's spouse flirting with other people, how likely are you to say nothing to your friend about it?
- 3) If your brother or sister separates from their spouse but doesn't want your parents to know, how likely are you to withhold this information from your parents?

## APPENDIX C

### MATERIALS FOR ESSAY 3

#### C.1 Study 1

##### C.1.1 Measures

Environmental Concern and Protection (taken from Fraj and Martinez 2006)

- 1- The current civilization is destroying nature
- 2- I worry about the human activity consequences on the climatic change and act consistently
- 3- I prefer consuming recycled products

Small Self Scale (taken from Shiota et al. 2007)

- 8- I felt the presence of something greater than myself.
- 9- I felt small or insignificant.
- 10- I was unaware of my day-to-day concerns.
- 11- I felt closely connected to the world around me.
- 12- I did not want the experience to end.
- 13- I was aware of my personal values.
- 14- I felt closely connected to my culture.

#### C.2 Study 2

##### C.2.1 Measures

Environmental Attitudes (taken from Iyer & Kashyap 2009).

- 1- I feel connected with nature and the world around me
- 2- I think of myself as an environmentalist
- 3- I feel a moral obligation to help protect the environment in whatever way I can
- 4- I'm really not very interested in environmental issues
- 5- I believe that all living things have an equal right to survive
- 6- I believe harm to our environment is a serious problem
- 7- I take responsibility to protect the environment around me

#### C.3 Study 3

##### C.3.1 Measures

Pro-Environmental Purchasing Behavior (Individual Level; taken from Schlegelmilch et al. 1996)

When you consider purchasing a product, please indicate whether or not you would buy the followings:

- Recycled paper products
- Products that are not tested on animals
- Environmentally-friendly detergents
- Organically-grown fruit and vegetables
- Ozone-friendly aerosols

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