ARE EMPATHY TRAITS ASSOCIATED WITH CULTURAL ORIENTATION?

A CROSS-CULTURAL COMPARISON

OF YOUNG ADULTS

by

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ABSTRACT

Empathy plays a pivotal role in social interactions and in academic achievements in fields such as reading and language. Different factors have been investigated regarding empathy; however, the role of culture has not obtained enough attention. The main aim of the present study is identifying the relationship between cultural orientation and the affective and cognitive empathic tendencies of university students in two societies, namely Turkey ($N$=128) and the United States ($N$=127). The most prominent empathy scales—the "Interpersonal Reactivity Index" (IRI; Davis, 1983) and the "Empathy Quotient" (EQ; Baron-Cohen & Wheelwright, 2004)—were used to measure empathy traits of students and the "Individualism and Collectivism Scale" (Triandis & Gelfand, 1998) was used to measure cultural orientation. The analyses indicated that empathy is negatively related to individualistic orientation, while positively related to collectivistic orientation. Moreover, contrary to the literature, Turkish students obtained higher scores in vertical individualism than U.S. students, while U.S. students obtained higher scores in horizontal individualism than Turkish students. Findings also revealed that Turkish university students have greater personal distress than U.S. university students. In addition, results showed that empathy scores of female participants are higher than male participants and female participants have a tendency toward collectivistic orientation. Other results, their implications, limitations, and suggestions for future studies are discussed as well.

DEDICATION

This thesis is dedicated to my family whose love and literal and figurative support

throughout the research process made this journey possible.

# LIST OF ABBREVIATIONS AND SYMBOLS

$a$      Cronbach's index of internal consistency

$df$      Degrees of freedom

$F$      Fisher's $F$ ratio

$M$      Mean

$N$      Number in a sample

$\eta_p^2$      Partial eta squared

$p$      Probability

$r$      Pearson product-moment correlation

SD      Standard deviation

$\Lambda$      Lambda

$<$      Less than

$>$      Greater than

$=$      Equal to

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**CHAPTER 1**

**INTRODUCTION**

**Empathy**

Empathy is a common interest among scholars, studies ranging across discipline boundaries in social psychology, moral psychology, the neurosciences, and psychiatry (Aaltola, 2014). Observing facial, vocal, or bodily expression is required for someone to recognize others' emotions (Batchelder, Brosnan, & Ashwin, 2017), and identifying, understanding, and experiencing the emotional situation of others is known as the ability to empathize (Decety & Moriguchi, 2007). It is essential for reciprocal social relationships (Bons, van den Broek, Scheepers, Herpers, Rommelse, & Buitelaaar, 2013). Titchener (1909) was the first person who introduced the word "empathy" by translating "Einfuhlung" from German to English (Baron-Cohen & Wheelwright, 2004), interpreting it as a concept similar to "adopting yourself into what you observe." Empathy was then defined by Mehrabian and Epstein (1972) as "the heightened responsiveness to another's emotional experience" (p. 526). These definitions of empathy may have viewed it as an affective phenomenon (Atkins, 2014); however, this social cognitive ability (Batson, 2009) has two components—namely, affective and cognitive (Blair, 2005; Borke, 1971; Davis, 1980, 1983).

**Affective and Cognitive Empathy**

Affective empathy requires understanding others' feelings and experiencing those same emotions with them. Accordingly, a relevant affective answer to others' states is produced by the observer (Decety & Jackson, 2004; Blair, 2005). To give an example, if a person responds with

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positivity towards another person who is sad because they have lost all of their money, the respondent's behavior cannot be considered affective empathy. The point is that the observer's emotions should be directly determined by another person's emotions (Batchelder et al., 2017). Having sensitivity and matching feelings with the target are features of affective empathy (Rogers, Dziobek, Hassenstab, Wolf, & Convit, 2007; Rueda, FernaÂndez-Berrocal, & Baron-Cohen, 2015). People who have affective empathy feel others' problems as if they were their own (Cooley & Schubert, 1998).

Cognitive empathy requires understanding another person's viewpoint (Phillips et al., 1998) and feelings (Kohler, 1929). It is an ability to deduce what others think (Baron-Cohen & Cross, 1992; Eisenberg, 2007) and be aware of others' feelings (Schieman & Van Gundy, 2000). Also, cognitive empathy refers to "perspective taking" (Maurage et al., 2011), "theory of mind" (Baron-Cohen & Wheelwright, 2004; Farrant, Devine, Maybery, & Fletcher, 2012), "emotion recognition" (Soto & Levenson, 2009), and "mindreading" (Whiten, 1991).

The connection between the cognitive and affective components of empathy is complicated. Some researchers found that there was a non-significant and yet related correlation between them (e.g. Davis, 1983; Rogers et al., 2007; Smither, 1977), while others believed that empathy components may affect each other. For instance, researchers found that emotional mood had an impact on shaping cognitive activities (Forgas & Bower, 1987). Moreover, Feshbach (1987) asserted that cognitive empathy is required as a prior condition for affective empathy, and Hoffman (2000) claimed that empathy components cooperate with each other to generate empathic responses.

While some researchers believe that empathy has been accepted as a cognitive approach, others consider that it has been taken into account as an affective approach. Baron-Cohen &

Wheelwright (2004) supported the idea that empathy cannot be classified as affective and cognitive, stressing that measuring overall affective and cognitive empathy scores of individuals is meaningful. However, as described below, other researchers asserted that empathy is a multidimensional construct (David, 1983; Tamura, Sugiura, Sugiura, & Moriya, 2016).

**The multidimensional model of empathy.** Generally, empathy happens as an emotional transformation process. The emotional status of the observed person also becomes the observer's emotional experience. In summation, empathy provides an understanding of the situation from the other person's perspective (Reeve, 2015). Being empathetic toward others leads to showing prosocial behavior to them, and prevents empathic individuals from doing harm to them (Blair, 1995). Individuals' empathic abilities are beneficial in terms of producing the proper emotional and behavioral responses (Hoffman, 1987) by utilizing affective and cognitive components (Atkins, 2014). David (1983) believed that empathy traits were connected to social functioning, self-esteem, emotionality, and sensitivity to others, and asserted that empathy traits should be identified in multidimensional subscales of affective and cognitive components of empathy, including perspective-taking, fantasy, empathic concern, and personal distress.

*Perspective-taking.* Perspective-taking (PT) is highly related to the cognitive empathy, and this scale estimates the inclination to automatically adopt others' psychological perspectives (David, 1983). There is a negative correlation between egocentric behavior and perspective-taking (Piaget, 1932) because perspective-taking helps people assume the behavior and responses of others. Thus, the higher the people's skills in perspective-taking, the better social functioning and self-esteem they will have (David, 1983). Moreover, perspective-taking is negatively associated with criminal acts, such as assault and robbery (Jolliffe & Farrington, 2004) and aggressive behavior (Giancola, 2003).

*Fantasy.* The fantasy scale (FS) is slightly associated with the cognitive empathy. It estimates individuals' inclinations to imaginatively put themselves into the feelings and reactions of characters in books, movies, and so on. Higher FS scores show higher emotionality (David, 1983).

*Empathic concern.* Empathic concern (EC) is highly related to the affective empathy traits, and this scale estimates inclinations to adopt feelings of sympathy, compassion, and concern for others (David, 1983). EC is accepted as the other-oriented emotional response (Batson, Fultz, & Schoenrade, 1987). EC is positively related to prosocial behaviors. For instance, people who have EC tend to help others, such as allowing a stranger to move first in a line (Wilhelm & Bekkers, 2010). Also, older people have more EC than younger ones, and the reason for this consequence may be the differences in socio-cognitive functioning in relation to age (Ze, Thoma, & Suchan, 2014).

*Personal distress.* Personal distress (PD) is slightly related to affective empathy. The PD scale estimates emotional reactions and "self-oriented" feelings of personal anxiety (David, 1983). High PD is associated with low social functioning and low self-esteem. Contrary to EC, PD does not produce altruistic behavior (Mehrabian and Epstein, 1972), but includes being uncomfortable with others' problems (Davis, 1994). High EC and low PD increase prosocial behaviors (e.g., Eisenberg et al., 1989). Moreover, researchers found a relationship between depressive symptoms' severity and PD in answering to the sufferings of other people (O'Connor, Berry, Weiss, & Gilbert, 2002; Thoma, Zalewski, von Reventlow, Norra, Juckel, & Daum, 2011).

There are various developmentally sensitive periods for EC and PT (Singer, 2006). For instance, adolescence is the sensitive period for PT, and PT is positively predicted by EC (van

Lissa, Hawk, de Wied, Koot, van Lier, & Meeus, 2014). Also, PT can be transmitted to adolescents from their mothers (Soenens, Duriez, Vansteenkiste, & Goossens, 2007), and in particular, a daughter's PT has been positively predicted by her mother's PT (van Lissa et al., 2014). In the present study, PT represents the cognitive component of empathy traits, whereas EC represents the affective component of empathy traits. FS and PD scores are reported separately because of their controversial relationships with empathy components according to recent studies. For instance, there are validity problems of PD and FS of the IRI given that empathy is too broadly defined in these scales (Tamura et al., 2016).

**Sympathy**

Sympathy is a response which includes pity or emotional concern, rather than suggesting that one share the same feelings with others. Sympathy is not accepted as being aware of and sensitive to others' emotions (Wispé, 1986; Eisenberg, Eggum, & Di Giunta, 2010). Some researchers have suggested that empathy consists of a particular emotional reaction (e.g. compassion) for another person (Batson, 1991), and that this circumstance may also be accepted as sympathy (Wispé, 1986). Davis (1994) explained how sympathy appears: the observer wishes to reduce the other person's discomfort because the observer's emotional reaction to the pain of another person triggers this desire. Actually, the observer might not take action to reduce the other person's discomfort, yet he/she still has the emotion (Baron-Cohen & Wheelwright, 2004). On the one hand, sympathy may be taken into account similarly to cognitive empathy, in knowing that both would be required to understand the emotional condition of other people. On the other hand, sympathy would entail a further appraisal concerning the aforementioned emotional recognition. In this case, both affective empathy and sympathy include an emotional response toward others' feelings. (Jolliffe, & Farrington, 2006). The difference between

components of empathy and sympathy is clearly explained in the model below (Figure 1.1) and it is understandable that sympathy may require both the cognitive and affective components of empathy (Baron-Cohen & Wheelwright, 2004).
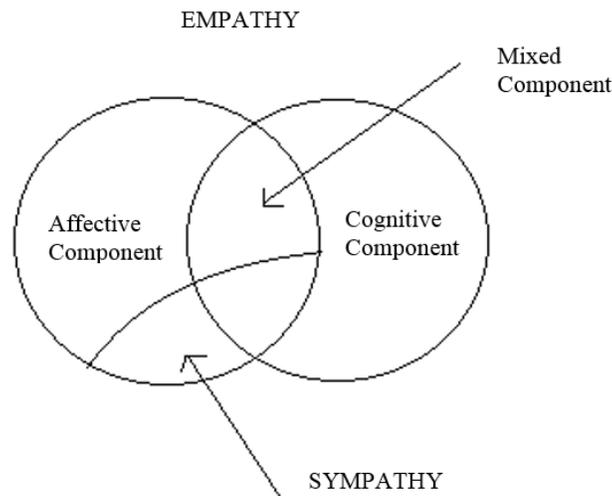


*Figure 1.1.* The Relationship between Components of Empathy (Baron-Cohen & Wheelwright, 2004).

**Empathy Development**

Empathy affects the quality of social relationships (McDonald & Messinger, 2011) not only in adulthood but also in childhood. Early researchers believed that children were not capable of cognitive empathy (Freud 1958; Piaget 1965), but a great number of studies emphasized that young children show empathic attitudes (Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman,1992; Zahn-Waxler, Robinson, & Emde, 1992), although careful study was necessary to evaluate their empathy development. This is because oral expressiveness of young children is restricted; however, children's reactions toward others' troubles may be an indicator of their empathy (McDonald & Messinger, 2011).

Within their first three days, newborns show discomfort when they hear the crying of another infant; however, they do not give similar reaction to their own crying. This situation is

called reflexive crying (Martin & Clark 1982; Sagi & Hoffman 1976). During infancy, showing PD to others' emotional states is the initial sign of EC (Hoffman 1975). Hoffman (1987) described this '0 to 12 months' period as "global empathy." When children attain the age 1 to 2 ½ years, they obtain object permanence and distinguish others from self. However, they may not distinguish what distresses the self and what distresses the other. So, Hoffman called this stage "egocentric empathy."

To evaluate empathy development in the second and third years of life, researchers examined toddlers' empathic responding and prosocial behaviors. They reported that there was an age-related elevation in EC. Toddlers displayed a multitude of helping mannerisms, including sharing; however, the quality of prosocial attitudes developed later, including showing facial concern (Zahn-Waxler et al., 1992).

The previously mentioned reactions are related to affective empathy, but to experience another person's emotional state requires cognitive empathy. With the starting of the preschool years, children's cognitive empathy (i.e., theory of mind or perspective taking) increases because their language develops and empathic abilities are better measured (McDonald & Messinger, 2011), such as via a false belief task (Wellman, Cross, & Watson, 2001). Through enhancement in the capacity to experience others' emotional states, children engage in helpful behavior. This may be because they precisely analyze social situations. For example, a child with the feeling of affective empathy desires to help his/her friend because he/she see him/her crying. By contrast, the child's cognitive empathetic response highlights the understanding that his/her friend requires relief. Both empathy components should develop together (McDonald & Messinger, 2011). Hoffman (1987) called the period from 2 ½ to 6 years as "empathy for another's feelings."

After early childhood, children recognize that others' troubles can be permanent. They pay attention to others' distress, and their empathic responses toward them increase. Hoffman named this late childhood as "empathy for another's life condition." The progression of moral and political ideas of adolescence toward less fortunate people is also related to this period. In the following years, prosocial behavior in childhood, such as sharing, predicted later prosocial tendencies in young adulthood, are recognized based on longitudinal studies (e.g., Eisenberg, Guthrie, Murphy, Shepard, Cumberland, & Carlo, 1999).

Different factors facilitate empathy development and different results occur. McDonald and Messinger (2011) explained these factors in Figure 1.2. Some of the factors are genetics, temperament, and parenting, some of the results are prosocial behavior and social competence.
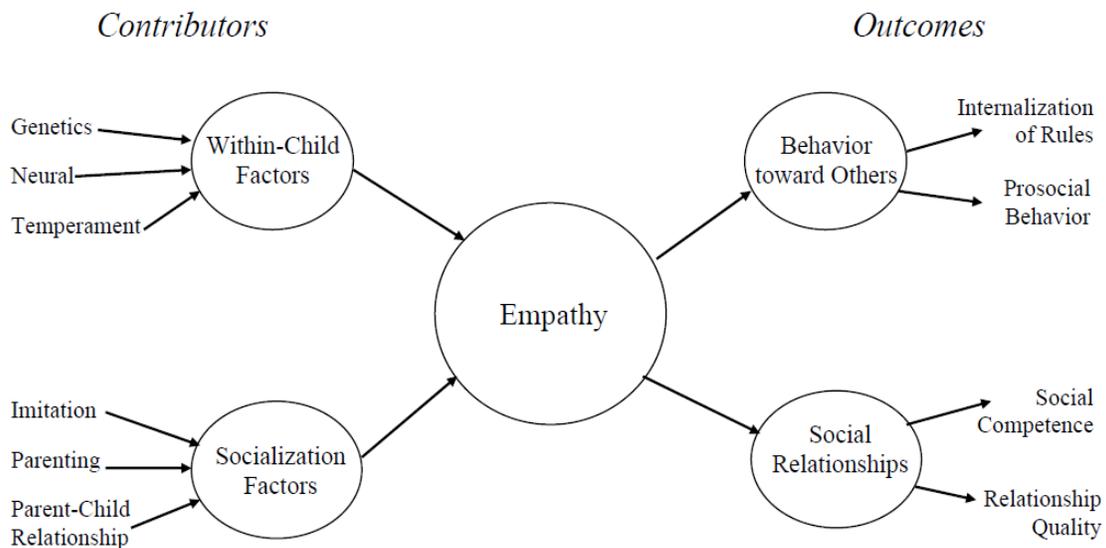


*Figure 1.2*. Contributors to and Outcomes of Empathy Development (McDonald & Messinger, 2011).

**Contributors to empathy.** Genetics, neural, temperament, imitation, parenting and parent-child relationship are factors that contribute to empathy development (McDonald & Messinger, 2011). These are discussed in detail below and parenting and parent-child relationship are explained under the same title because of their similar contributions.

*Genetics.* Studies with monozygotic and dizygotic twins propounded that genetic differences affect empathic tendencies, besides environmental factors. In early years of life, there is more similarity between monozygotic twins than dizygotic twins about empathic behavior, such as EC (e.g., Knafo, Zahn-Waxler, Van Hulle, Robinson, & Rhee, 2008).

*Neural basis of empathy.* People are born with an empathy ability that is facilitated by a neural network formed from the Mirror Neuron system (MNs), the limbic system, and the insula (Carr, Iacoboni, Dubeau, Mazziotta, & Lenzi, 2003; Iacoboni, 2009). Empathy originates from two main antecedents (Hoffman, 2008). The first one is mimicry. Mimicry means that one modifies his/her facial, postural, or vocal expression, depending on another person's expressions (Regenbogen et al., 2012). One explanation for this behavior may be that observing another person's facial expressions activates mirror neurons, and mirror neurons activate the identical emotion in the observer (Davis, 2004). The MNs is the most reliable source concerning the biological origin of empathy. In addition to different visual areas, motor circuits are simultaneously activated in the brain of the observer, who notices the activity a person performs. The point is that motor circuits are recruited if observers themselves perform that activity. Based on this point of view, recognizing an activity is similar to internally generating it (Gallese, 2003). The second antecedent is perspective-taking, which involves understanding another person's feelings rather than experiencing his/her emotional status (Davis, 2004). Affective empathy involves sympathy, compassion, and concern, while cognitive empathy involves perspective-taking (Hoffman, 2000).

Mimicry is pervasive and automatic (Dijksterhuis, 2005), and it promotes empathy. Neuroscience studies have confirmed these social psychology investigations through neural mechanisms resulting from imitation (Lacoboni, 2009). For instance, such studies have

determined that there is a positive relationship between concern for other people's feelings and the strength of a tendency to imitate others (Chartrand & Bargh, 1999).

Neurological studies have shown connections between brain functions and empathy components. Uzefovsky and colleagues (2015) asserted that some brain neurotransmitters are the cause of cognitive and emotional empathy. The researchers found that there is a relationship between the oxytocin receptor (OXTR) and affective empathy, and also the arginine vasopressin receptor 1a (AVPR1a) and cognitive empathy. Another example of the neural activity associated with cognitive and emotional empathy is that deterioration exists in emotional empathy of Post-Traumatic Stress Disorder (PTSD) patients, though the same deterioration does not exist with respect to cognitive empathy (Mazza et al., 2015).

Affective empathy consists of emotion identification, emotional connotation, and shared pain. These reactions are connected to the inferior parietal lobe, the neural activation of the inferior frontal gyrus, the anterior cingulate cortex (Faccioli, Peru, Rubini, & Tassinari, 2008), and the anterior insula. Cognitive empathy, consisting of "theory of mind," is the ability to recognize and predict the others' behavior (Gabay, Shamay-Tsoory, & Goldfarb, 2016). Responsible brain regions connected with cognitive empathy, and specifically "theory of mind," are the temporoparietal junction and the medial prefrontal cortex (Shamay-Tsoory, 2011).

*Temperament.* Temperament, a hereditary trait, is the initial foundation for the development of personality (McDonald & Messinger, 2011). For instance, behaviorally restrained preschool-aged children have high empathy scores, according to parent reports (Cornell & Frick 2007). On the contrary, behaviorally restrained toddlers rarely show empathic behaviors toward a stranger (Young, Fox, & Zahn-Waxler, 1999). These opposite results provide evidence that behaviorally restricted children might show empathic behavior in familiar

circumstances, while they might not react to others' troubles in unfamiliar circumstances (McDonald & Messinger, 2011). For later years, empathy and personality are related dimensions. For instance, there is a positive relationship between empathy and agreeableness and conscientiousness (Chopik, O'Brien, & Konrath, 2016). This may be because more agreeable individuals show other-oriented behaviors, including compassion and prosocial behaviors. Also, they are less aggressive (Graziano & Eisenberg, 1997).

*Imitation.* As aforementioned under the title of "neural basis of empathy," when people interact with each other, they unconsciously imitate others' motor movement (Hess & Bourgeois 2009). The imitation of facial gestures is noticed at the beginning of infancy (Meltzoff & Moore 1983). Studies emphasize that there is a positive correlation between empathy and accompanying facial mimicry (Sonnby-Borgstrom, Jönsson, & Svensson, 2003). Mimicry is necessary for both cognitive and affective empathy development because it helps people to internalize others' emotional situations (McDonald & Messinger, 2011).

*Parenting and parent-child relationship.* Parenting is essential for empathy development because of the social effect of caregivers' on children. There are several practices that parents follow to enhance children's empathy. For instance, mother-infant synchrony in early years of life is connected with empathy level in adolescence (Feldman, 2007). This situation is also related to imitation because children internalize and understand parents' emotional expressions. Moreover, when parents talk with children about emotions, this practice increases their children's empathy traits (Garner 2003). The other practice is maternal warmth. The more maternal warmth experienced, the more empathy children develop (Zhou et al. 2002). The quality of the parent-child relationship can be explained with attachment security. Securely

attached children feel more empathetic than those who are insecurely attached (Kestenbaum,

Farber, & Sroufe, 1989).

**Outcomes of empathy.** Internalization of rules, prosocial behavior, social competence,

and relationship quality are outcomes of empathy development (McDonald & Messinger, 2011).

These are discussed in detail below.

***Internalization of rules and prosocial behavior.*** Empathy triggers altruistic behavior (de

Waal, 2008) and prosocial behavior (Eisenberg & Miller, 1987). Having empathetic feelings

toward others' troubles contribute to learning right and wrong. For instance, noticing others'

problems is a powerful sign that these people require help (McDonald & Messinger, 2011).

Empathy is the essential component for moral behavior and character (Hogan, 1969).

From Kohlberg's point of view, the relationship between empathy and morality was explained as

a cognitive process. Kohlberg (1984) believed that PT composes the source of the development

of moral judgment. From the Neo-Kohlbergian perspective, the association with empathy and

morality was posited to be related to one of the four processes in moral behavior: moral

sensitivity, which requires caring for others' necessities. Besides this moral perception, this

component also requires moral imagination, such as interpreting potential reasons and

consequences of events (Narvaez, 2005). In general, moral sensitivity requires empathy (Rest,

1986) and a feeling of affiliation with others (Crowell, Narvaez, & Gomberg 2005). Related to

cognitive empathy, there was a positive relationship between alterations in PT by age

(adolescence-early adulthood) and the development of prosocial moral judgment (Eisenberg,

Cumberland, Guthrie, Murphy, & Shepard, 2005). Moreover, moral judgment competence was

positively related to cognitive empathy in both adolescents and adults (Lajčiaková, 2014).

Related to affective empathy, emotional concern for others may inspire moral action (Davis

1994). The sign is that preschoolers are able to adjust their attitudes in socially accepted ways,

and the source of their conformity may be related to children's ability to recognize others' beliefs

and feelings (Lane, Wellman, Olson, LaBounty, & Kerr, 2010). Accordingly, empathy has a

powerful role in social behaviors, including moral reasoning and the prevention of aggression

(Decety & Lamm, 2006), and it may be the key element of adequate moral development (Jolliffe,

& Farrington, 2006).

   *Social competence and relationship quality.* Quality relationships may positively

contribute to the trait of empathy due to their increasing emotional concern for others (Schieman

& Van Gundy, 2000). If children had higher empathy traits, their social competence would be

high (Sallquist, Eisenberg, Spinrad, Eggum, & Gaertner, 2009) and show cooperative attitudes

(Eisenberg & Miller, 1987).

   The ability to empathize has been connected to several attachment constructs, including

trust and closeness in relationships (Joireman, Needham, & Cummings, 2002). Moreover,

showing empathetic behavior to one's partner has been linked with adults' romantic relationship

pleasure (Cramer 2003).

**Culture**

   Culture has been described by Pedersen (1991) as "learned perspectives that are unique to

a particular culture, and common ground universals that are shared across different groups" (p.

6). Some of the popular characteristics of Western culture are pragmatism, masculinity, and

avoidance (Hofstede, 1980). Hofstede (1984) collected data of more than 116,000 employees in

forty countries. Currently, there are seventy-two countries in his cultural scale (e.g., Hofstede,

Hofstede, & Minkov, 2010). According to his report, there are four specific characteristics of

cultures: masculinity, uncertainty avoidance, power distance, and individualism. (Currently, he

has added additional two dimensions, "long-term orientation" and "indulgence").

**Masculinity.** In a masculine culture, people try to have material success. The dominant

characteristics of these societies are competition and ambition. In a feminine culture, the specific

features of people are being humble, cooperative, and consensus-oriented. Some masculine

countries are Japan and Italy, and English speaking Western nations are somewhat masculine.

Some feminine countries are Denmark, Finland, and the Netherlands, and somewhat feminine

countries are France, Spain, and Korea (Hofstede, Hofstede, & Minkov, 2010).

**Uncertainty avoidance.** This dimension measures how people deal with and feel about

uncertainty and unpredictable conditions. If uncertainty avoidance is high, people who live in

this culture are likely to be aggressive, intolerant, and emotional (Hofstede, 1984). Such

countries include East and Central European nations and Japan. Uncertainty-accepting societies,

such as English-speaking and Nordic speaking nations, and Chinese culture, are more tolerant of

different beliefs and strive to decrease rules (Hofstede, Hofstede, & Minkov, 2010).

**Power distance.** Societies are unequal. However, acceptance and tolerance of this

inequality in power change from culture to culture (Hofstede, 1980). Small power distance (e.g.

the United States and in general, English-speaking Western nations) indicates that people try to

balance the power distribution in the society. In large-power-distance countries, the hierarchy is

important. Subordinates depend on their bosses or authorities. Children are likely to be compliant

toward their parents/teachers and respect them (Hofstede, Hofstede, & Minkov, 2010).

**Individualism.** People with individualist values are not integrated and are interested in

only their own and immediate family. (Hofstede, 1984). The uniqueness of individuals is

essential (Singelis, 1994). In a collectivistic culture, people take care of in-group members and

they are integrated. (Hofstede, 1980; Hofstede, Hofstede, & Minkov, 2010). These two distinct components reflect cultural orientation and are explained in further detail below.

**Cultural Orientation: Individualism and Collectivism**

The study conducted by Hofstede (1980, 1984) shed light on the construct between individualism and collectivism.

A concept of collectivism was defined by a cross-cultural researcher Hofstede (1991) as "pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" while individualism was accepted by Hofstede (1991) as "pertains to societies in which the ties between individuals are loose; everyone is expected to look after himself or herself and his or her immediate family" (p. 614). Based on studies in the literature, individualistic features are Western-specific personalities, including Western European and North American, while collectivistic features are non-Western-specific personalities, including Asian and African (Green, Deschamps, & Paez, 2005).

Related to individualism-collectivism, some other researchers (e.g., Bond 1988; Triandis et al., 1986) also found similar results. Triandis and colleagues highlighted that self-reliance and independence, competition, and hedonism represent individualism, while interdependence, family integrity, closeness to in-groups, and sociability represent collectivism. Triandis and Bhawuk (1997) explained collectivism and individualism in a widely acceptable manner:

1. People of individualistic societies identify the self as independent and autonomous, while people of collectivistic societies think of the self as interdependent (Reykowski, 1994). For instance, collectivists can dress in same clothes, whereas individualists prefer to wear clothes that are different from others' (Triandis & Bhawuk, 1997).

2. Individualists have personal goals rather than in-group goals, whereas collectivists have in-group goals (Schwartz, 1990; Schwartz, 1994; Wagner, & Moch, 1986). When there is an inconsistency between personal and in-group goals, collectivists believe that group goals should be preferential and individualists believe that personal goals should be preferential (Schwartz, 1990).

3. There is some specific social behavior in societies. The indicators of collectivistic cultures are giving high importance to duties, norms, and responsibilities. The indicators of individualistic cultures are prioritizing to personal requirements, personal beliefs, and perceived benefits (Bontempo & Rivero, 1992; Miller, 1994).

4. Rationality is stressed in individualistic societies. Rationality means estimating the advantages and disadvantages of relationships. However, collectivistic societies stress unconditional relatedness that means the relationship with and the needs of others are important (Kim, Triandis, Kâğitçibaşi, Choi, & Yoon, 1994).

The common attributes of individualistic cultures are being rich, industrialized, and urbanized (Sinha, 2014). If individuals are not satisfied, they usually stop relationships (Triandis & Gelfand, 2012), and typically, they are self-reliant and achievement oriented (Green, Deschamps, & Paez, 2005). However, the popular features of collectivistic cultures are being poor, traditional, and rural (Sinha, 2014).  They tend to ask help from others when faced with challenges (Kim, Sharkey, & Singelis, 1994) and strive to solve interpersonal problems in a process that will sustain their relationships (Kim et al., 1994; Triandis & Gelfand, 2012). Hofstede (2011) itemized some differences between societies in Table 1.1 below.

Table 1.1.

*Constructs Between Individualist and Collectivist Cultures (Hofstede, 2011)*

| Individualism | Collectivism |
|---|---|
| 1. Everyone is supposed to take care of him- or herself and his or her immediate family only | 1. People are born into extended families or clans which protect them in exchange for loyalty |
| 2. "I" – consciousness | 2. "We" – consciousness |
| 3. Right of privacy | 3. Stress on belonging |
| 4. Speaking one's mind is healthy | 4. Harmony should always be maintained |
| 5. Others classified as individuals | 5. Others classified as in-group or out-group |
| 6. Personal opinion expected: one person one vote | 6. Opinions and votes predetermined by in-group |
| 7. Transgression of norms leads to guilt feelings | 7. Transgression of norms leads to shame feelings |
| 8. Languages in which the word "I" is indispensable | 8. Languages in which the word "I" is avoided |
| 9. Purpose of education is learning how to learn | 9. Purpose of education is learning how to do |
| 10. Task prevails over relationship | 10. Relationship prevails over task |

In general, individualism is accepted as the opposite of collectivism; however, people can obtain high or low scores in both collectivism and individualism (Shulruf et al., 2011). Moreover, collectivism may exist in a mainly individualistic society, and individualism may exist in a mainly collectivistic society (Gelfand & Dyer, 2000). People might believe in both individualism and collectivism at the same time, and they can temporarily use one of them according to situations and relations, such as individualistic business relationships and collectivistic family relationships (Green, Deschamps, & Paez, 2005). This is because people universally require both independence and interdependence; hence, individualism and collectivism should not be viewed as two different ends of a continuum (Kagitcibasi, 1996). Chen and colleagues (2015) explained this issue as:

(a) People who believe in both individualism and collectivism may selectively

utilize each in different settings to maximize their own benefits. (b) People who

embrace neither individualism nor collectivism may be at increased risk of health

problems. (c) Individuals who disbelieve in collectivism will be less likely than

those who believe in collectivism to interact with others, reducing their likelihood

for social capital accumulation and resilience development, and lacking social

support to use as a buffer against stress. (d) Individuals who disbelieve in

individualism will have low motivation for success and, thus, an increased

likelihood of failure in career and life, which may lead to stress and associated

health issues. (p. 670)

**The multidimensional approach for cultural orientation.** The most important variation

between individualism and collectivism is based on how people see themselves, whether similar

to other people or different from others. This is where horizontal and vertical aspects of

individualism and collectivism come into play (Triandis, 1995; Triandis & Bhawuk, 1997).

Markus and Kitayama (1991) stated the differences of independent-interdependent and same-

different self-construal. By taking into account this information, Triandis (1995) attracted

attention to the relationship among vertical-horizontal and individualism–collectivism

classifications.

Collectivism and individualism are distinguished as being either vertical (emphasizing

hierarchy) or horizontal (emphasizing equality) (Triandis, 1995). The horizontal form is related

to friends and coworkers and the vertical form is related to teachers, parents, employers, and

other authorities (Schwartz et al., 2013). By studying with participants from the US

(individualistic) and Korea (collectivistic), Triandis and Gelfand (1998) empirically

demonstrated the polythetic constructs of individualism and collectivism—horizontal collectivism (HC, interdependent/same self-construal), vertical collectivism (VC, interdependent/different self-construal), horizontal individualism (HI, independent/same self-construal), and vertical individualism (VI, independent/different self-construal).

*Horizontal and vertical collectivism.* Distinct kinds of individualism and collectivism exist. Horizontal collectivists abide by the social unit and they support high equality among all. For example, in Israeli Kibbutzim, members view themselves as having equal status with other members in the Kibbutz. However, vertical collectivists are more sensitive and sacrifice themselves for the sake of the group members. For instance, the Chinese are vertical collectivists and they view Confucius as their master and obey him (Triandis & Bhawuk, 1997).

Horizontal collectivists are concerned with joining with in-groups (e.g., family). The happiness of the group member is essential to a horizontal collectivist, but he/she does not feel bonded to his/her in-group (e.g. To me, pleasure is spending time with others). Sociability and interdependence are emphasized; however, horizontal collectivists can resist authority (Triandis & Gelfand, 1998). Equality is the main principle of this model (Singelis, Triandis, Bhawuk, & Gelfand, 1995).

Vertical collectivists not only conform to the norms of their in-groups but also, they are ready to self-sacrifice for their in-groups (Chiou, 2001). They are likely to say that "Family members should stick together, no matter what sacrifices are required." In relation to vertical collectivists, Triandis and Gelfand (1998) also noted that "If in-group authorities want them to act in ways that benefit the in-group but are extremely distasteful to them, they submit to the will of these authorities" (p. 119). Becoming submissive to in-group authorities is underpinned by vertical collectivists (Triandis, 2001).

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*Horizontal and vertical individualism.* Individualism has various aspects. For example, American individualism and Swedish individualism are different from each other (Triandis, 1990,1995). Swedes describe themselves as independent, self-reliant, cooperative, and just like most other Swedes; thus, these are the features of horizontal individualists. Americans describe themselves as independent, responsible, competitive, and distinguished; thus, these are characteristics of vertical individualists (Triandis & Bhawuk, 1997).

Horizontal individualists (e.g., Norway and Sweden) are dependent on themselves rather than on others. Individuality is important to a horizontal individualist (Chiou, 2001). It is possible for him/her to say, "I rely on myself most of the time; I rarely rely on others." Acquiring high status or becoming different from others is not required for horizontal individualists (Triandis & Gelfand, 1998), and they follow their own desires (Triandis, 2001).

According to Chiou (2001), vertical individualists (e.g., France and the United States) compare themselves to others. They think that winning is everything (e.g. Competition is the law of nature). Having high status and becoming different from others are essential for vertical individualists (Triandis & Gelfand, 1998).

Triandis and Gelfand (1998) also supported this four-way typology—HC, VC, HI, and VI—by reviewing cultural studies in the literature (e.g., Fiske, 1992; Rokeach, 1973). More specifically, Fiske (1991, 1992) attracted attention to the fact that people of each culture have specific social behavior, including equality, hierarchy, proportionality, and sharing. The first culture-specific behavior is "communal sharing," meaning that resources are shared based on necessities. It is related to collectivism and includes some specific attitudes, such as caring, selflessness, and nurturing. The second one is "market pricing," which stands for what people get from resources according to their contribution. This form is related to individualism. The third

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form is "equality matching." According to this pattern, an equal distribution should be applied to resources. Also, justice and fairness are supported. This form is involved in the horizontal direction. The last form is "authority ranking." In other words, people believe that resources should be distributed based on rank. For instance, in Chinese culture, the oldest man in the family eats first; thus, the meal is distributed according to age. Another example is that in the United States., the political president gets more money than the managers; thus, the money is divided based on rank (Triandis & Bhawuk, 1997). Similar to the studies of Fiske, Rokeach's (1973) political system critiques are suitable to dimensions of Triandis and Gelfand. By asking participants to put in order eighteen values, including freedom and equality, Rokeach classified people according to their answers and then identified four kinds of people. When he assessed the speeches given by world leaders, he also noticed that the presidents of the United States. generally emphasized on freedom, but not equality; Lenin frequently stressed equality, but not freedom, Hitler preferred to use neither equality nor freedom, and Swedish prime ministers usually emphasized both of the words in their speeches. Low equality in a country is the indicator of the vertical aspect and high equality is the indicator of the horizontal aspect. Moreover, high freedom shows individualism and low freedom shows collectivism (Triandis & Bhawuk, 1997). The connection with horizontal and vertical individualism and collectivism and other typologies are shown in Table 1.2 (Triandis & Gelfand, 1998).

Table 1.2.

*Relation of Horizontal and Vertical Individualism and Collectivism to Other Typologies (Triandis & Bhawuk, 1997)*

| Dimension | Collectivism | Individualism |
|---|---|---|
| Vertical self | Self different from others | Self different from others |
| Fiske (1992) | Communal sharing | Market pricing |
| | Authority ranking | Authority ranking |
| Rokeach (1973) | Low freedom | High freedom |
| | Low equality | Low equality |
| | Communalism | Market democracy |
| | (e.g., China) | (e.g., France) |
| Horizontal self | Self same as others | Self same as others |
| Fiske (1992) | Communal sharing | Market pricing |
| | Equality matching | Equality matching |
| Rokeach (1973) | Low freedom | High freedom |
| | High equality | High equality |
| | Communal living | Democratic socialism |
| | (e.g., Kibbutz) | (e.g., Norway) |

# CHAPTER 2

# LITERATURE REVIEW

**Empathy**

Empathy may be accepted as a stable inclination (trait empathy) or a situation-specific approach (state empathy) (Brouns, de Wied, Keijsers, Branje, van Goozen, & Meeus, 2013). Due to empathy skills, people are able to understand others' intentions and gain appropriate social interactions. As mentioned before, though, defining empathy is hard because researchers generally acknowledge either the cognitive or affective approach for it. However, both approaches are pivotal to explaining empathy (Baron-Cohen & Wheelwright, 2004). A summary of previous research exemplifies these components in the below literature review.

Empathy is connected with various skills, and some components of empathy can be more important than the other(s) in some contexts. Cognitive empathy, and in particular perspective-taking, may be more significant than affective empathy in motivating people to help others. Cognitive empathy has also been associated with global responsibility (Marjanovic, Struthers, & Greenglass, 2012). After a natural disaster, such as an earthquake or hurricane, man-made buildings may collapse. In this situation, cognitive empathy has inhibited potential donors from blaming the sufferers. However, there has been an extremely limited relationship between helping and EC (Einolf, 2012). Another example is that empathy-related dysfunction has been connected to a range of problems. Preadolescents who are typically found to have conduct disorder (CD) and a high degree of callous-unemotional (CU) traits show a lacking cognitive

empathy in girls and display deficits of cognitive and affective empathy in boys (Dadds et al., 2009).

Similarly, children with autism spectrum disorders (ASD) have deficiencies in their cognitive empathy (Jones, Happé, Gilbert, Burnett, & Viding, 2010; Pasalich, Dadds, & Hawes 2014). In another context, reading abilities in people who have dyslexia are related to their empathy traits (Gabay, Shamay-Tsoory, & Goldfarb, 2016) and children's language skills are related to their cognitive empathy abilities (Astington & Jenkins, 1999). Another example is that several socio-cognitive deficiencies (such as empathy traits) exist in patients with epilepsy. There was a lack of cognitive empathy skills in patients with idiopathic generalized epilepsy (IGE); however, there was no impairment in their affective empathy skills (Jiang, Hu, Wang, Zhou, Zhu, & Wang, 2014). The relationship between alcoholism and deficiencies in general empathy traits have not been determined to exist (Maurage et al., 2011).

The effects of empathy in other contexts were also investigated by researchers. These contexts included the association of empathy with fairness (Singer, 2007), empathy with aggression (Mehrabian & Epstein, 1972), empathy with self-esteem (Ghorbani, Watson, Hamzavy, & Weathington, 2010), and empathy with bullying (Van Noorden, Haselager, Cillessen, & Bukowski, 2015). Moreover, studies completed by researchers interested in learning how empathy trait differs by gender (Duarte, Raposo, Rodrigues, & Branco, 2016), achievement (Yalcin-Tilfarlioglu & Arikan, 2012), year of study (Bayliss & Strunk, 2015) are examined in further detail below.

**The Relationship between Empathy and Other Variables.**

*Gender.* There is a gender difference in empathy traits; generally, women obtain high scores from questionnaires related to empathy (Eisenberg & Lennon, 1983; Schieman & Van

Gundy, 2000). This may be because men sometimes think that showing emotional expression is a sign of weakness (Gilligan, 1982). Culture typically determines gender roles in societies as being feminine and masculine. This difference is not strict in Western societies, however (Schieman & Van Gundy, 2000). Accordingly, empathy traits' relationships with gender may change based on culture.

*Education.* Education provides socio-cognitive advantages, an improvement in intellectual ability, and the production of detailed beliefs about others and the self (Franks, Herzog, Holmberg, & Markus, 1999), so individuals with a high level of education may have high empathy traits. Previous studies reported that empathy scores of business students are lower than students from psychology, nursing (Bécares & Turner, 2004) and social science (Myyry & Helkama, 2001) departments. Anderson (1990) found that empathy levels of psychiatric nursing students were affected by the empathy level of staff in the same department. It can be deduced that students view the professional psychiatric nursing as role models.

*Socioeconomic status*. Socioeconomic status and education may be assessed together since education is generally related to income. People may gain an opportunity to have relationships with others through income and education (Herzog & Markus, 1999; Schieman & Van Gundy, 2000). Thus, less educated older people may have low empathy traits because of their low income (Labouvie-Vief, 1999).

*Health.* The physical health of an individual may affect their ability for empathizing because of restrictions in communicating with other people (de Vries, 1996). Moreover, pain may also be related to empathy. On the one hand, pain may undermine feelings of empathetic concern toward others (Schieman & Van Gundy, 2000). On the other hand, pain may increase sensitivity toward others, and improve sympathy and empathy (Krebs, 1970; Wispé, 1986).

*Dispositional attributes.* The personal attribution, including mastery, affects the capacity of empathy (Schieman & Van Gundy, 2000). Mastery cultivates responsibility for others (Graziano & Eisenberg, 1997) and creates time and energy for one to be interested in others' problems (Turner & Roszell, 1994), same as the features of empathy.

*Religion.* Religious involvement might improve responsibility (Musick, 1996) and actions taken for others (Graziano & Eisenberg, 1997); thus, religious involvement may increase empathy (Levin & Tobin, 1995).

*Age.* Socioeconomic status, higher education, health (physical impairments), religious involvement, personal attribution, and the quality of social relationships may be associated with and changed by age (Schieman & Van Gundy, 2000). Age is an important personal variable for a research investigation connected to empathy. Children's affective and cognitive empathic behaviors develop throughout preschool and above (Eisenberg, Fabes, Miller, Shell, Shea, & May-Plumlee, 1990). Among preschoolers, girls demonstrated higher empathy traits (affective and cognitive) than boys, based on teachers' reports (Belacchi & Farina, 2012).

Over time, empathy traits change. Although people of older ages have some cognitive deficiencies (Buckner, 2004), their ability to understand others increases (Magai, 2001). For instance, in older ages, affective empathy increases (Ze, Thoma, & Suchan, 2014), while cognitive empathy diminishes (Bailey & Henry, 2008). Researchers ascertained the differences between cognitive and affective empathy in older and younger cohorts. Outcomes of the study displayed that there were no significant differences across age groups; however, an increase was shown in affective empathy in older ages (Ze, Thoma, & Suchan, 2014). The idea is that because emotional experience and social roles change by age, empathy traits of individuals may also change (Schieman & Van Gundy, 2000).

*Fairness.* Most researchers claim that our brain replies to others' emotional situations automatically; however, we do not all experience the same emotions as others in given situations. To give an example of where personal reactions might differ, consider the idea of one of your colleagues receiving double your salary while engaging in the same work as you. Even if other people feel happy for this person, you may not since you believe that this circumstance is not fair. The feelings of fairness and justice are popular in interpersonal relationships, including those experienced with family members, colleagues, and so forth. The relationship between empathy and fairness is based on principles of morality. People have a feeling of empathy with others who are not acted upon fairly, and these people, who empathize with others, will behave to correct the unfairness (Singer, 2007).

*Aggression.* Empathy may influence social and personal situations, as seen in the context of cooperation with others (Davis, 1994; Schieman & Van Gundy, 2000). Low empathy may be connected to aggressive behavior (Eisenberg & Miller, 1987) and antisocial behavior, given that there is an association between empathy and prosocial behavior (Jolliffe, & Farrington, 2006). Such a relation can be explained through the concept that people who understand another person's reaction toward themselves as a consequence of their aggressive behavior, are not likely to maintain the same behavior later (Feshbach, 1975). For instance, students who are more empathetic and caring are less likely to be violent toward their peers (Bilić, 2013).

*Offending.* Following from the connection with empathy and aggressive behavior, Miller and Eisenberg (1988) noted that empathy and offending behavior are negatively related. They also stressed that this connection was weaker for affective empathy when compared to cognitive empathy, and weaker for older people than younger people.

***Bullying.*** Bullying is accepted as a subtype of aggressive behavior. Different from aggression, bullying happens repeatedly, and there is not any balance between the target and the perpetrator in terms of power (Van Noorden et al., 2015). Previous studies related to involvement in bullying (e.g. Belacchi & Farina, 2012; Kokkinos & Kipritsi, 2012) were reviewed by Van Noorden and his colleagues (2015). They found that there is a negative relationship between bullying and empathy—especially affective empathy—while a negative relationship was observed between victimization and cognitive empathy. Additionally, they determined that there is a positive relationship between the defense of the victim and the two components of empathy.

***Psychopathy.*** Individuals who possess psychopathic traits have adequate cognitive empathy (Blair et al., 1996; Richell, Mitchell, Newman, Leonard, Baron-Cohen, & Blair, 2003), but there is an absence of affective empathy that causes them to behave without consideration of others' feelings (Brouns et al., 2013; Tamura et al., 2016; Tangney & Stuewig, 2004). In other words, psychopaths are aware of the victims' feelings, but they do not feel their pain (McInnis, 2014). The reason for this low affective empathetic ability of psychopaths may be that there are dysfunctions in their general emotion arousal (Tamura et al., 2016) or abnormalities in their brain circuits (Blair, 2007), including dysfunction in their amygdala (Blair, 2005).

## Culture

Culture affects individuals' behavior depending on the context. One of the most important divergences among culture is individualism and collectivism. The differences between collectivism and individualism were defined by Triandis (1995). According to this idea, individuals of collectivistic societies care about connectedness with other people and strive to achieve their in-groups' aims. They are other-focused (Oyserman, Coon, & Kemmelmeier, 2002)

and have associative needs (Hui, 1988). However, people in individualistic societies aspire to achieve their own individual aims. They are self-focused (Oyserman et al., 2002) and have needs for autonomy (Hui, 1988). Collectivists believe that the task is cooperative, while individualists accept that the task is competitive (Triandis & Bhawuk, 1997). Kim (2016) investigated another impression of cultural orientation (i.e., the impacts of message approach and source cue on the behavior of consumers). According to the findings, emotional messages were powerful for people with collectivistic cultural orientations, while rational messages were powerful for people with individualistic cultural orientations. Group membership is important for people who believe in collectivism; thus, they showed positive behavior to charity advertising.

In the study conducted by Triandis and Gelfand (1998), another aspect of individualism and collectivism appeared. They found that individualism and collectivism can be distinguished as horizontal and vertical. Horizontal collectivism includes reciprocal interdependence and respect according to equality and mutuality (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Vertical collectivism involves subordination to society leaders. Horizontal individualism avoids classification and rank among people, and focuses on equal treatment. Vertical individualism supports the right of people to retain and maintain resources and status (Triandis, 1995). Triandis and Gelfand (1998) reported that vertical individualists (e.g., the United States.) highlighted more hedonism and competition than the horizontal individualists; the horizontal individualists (e.g., Norway and Sweden) highlighted more self-reliance. The vertical collectivists (e.g., India) highlighted sociability although they are viewed as authoritarian; the horizontal collectivists (e.g., Israel) highlighted sociability and interdependence. Ayçiçeği-Dinn and Caldwell-Harris (2011) examined individualism and collectivism with the sample from the United States., Turkey, and Turkish immigrants in the United States. According to the findings, immigrants

supported stronger horizontal and vertical collectivism, and they reported more self-reliance during competition and responsibility compared to non-immigrants.

**Some Differences amongst Cultures.**

*Norms.* Related to cross-cultural understanding, Gelfand and colleagues (2011) collected data from 33 countries. They were under the impression that differences exist among cultures in terms of their tightness (strong social norms) and looseness (weak social norms). The findings displayed that tight nations, including Turkey, are more religious, more likely to have more rules greater regulations, and political pressures, and have a lower crime rate. There are higher restrictions in daily environments, such as in the bank, library, restaurant, and workplace. Looser societies, including the United States, have the opposite features of tight countries, such as it is less religious and has a higher crime rate.

*Education.* The purpose of education changes according to cultures. Collectivistic societies see the goal of education as learning how to do. They believe that diplomas give people higher status. However, the goal of education is learning how to learn in individualistic societies, and they use diplomas to elevate income (Hofstede, Hofstede, & Minkov, 2010).

*Fairness.* Several aspects vary among cultures, and cultural environment influences personal decisions (Hofstede, 1984). For instance, Westerners display more analytic thinking, and Easterners display more holistic thinking (Nisbett, Peng, Choi, & Norenzayan, 2001; Norenzayan, Choi, & Peng, 2007). Moreover, fairness and cooperation in economic decision-making are different in industrialized societies when compared to small-scale societies. The report was based on experiments related to *The Ultimatum Game* and *The Dictator Game*. *The Ultimatum Game* measures whether people punish unfairness, and *The Dictator Game* measures the fairness of people. American adult participants filled the extreme ends in both their

willingness to reject an unfair offer and to make a fair offer in these games, when compared to people from other societies, such as those from Africa, Oceania, and New Guinea (Henrich, Heine, & Norenzayan, 2010).

*Personality and behavior.* Some of the behavioral and personality features of collectivist societies are that individuals are more introvert, have slower walking speed, and prefer their own social networks to get information. However, people in an individualistic society are more extroverts, have faster-walking speed, and rely on the media to get information. Showing happiness in public is discouraged in collectivistic cultures, while showing sadness is discouraged in individualistic societies (Hofstede, Hofstede, & Minkov, 2010).

*Ideas.* From the cultural standpoint, Turkish cultural features are more similar to Eastern societies than Western societies. For instance, the philosophic ideas of Confucius have developed in East Asia, while Aristotelian beliefs have grown in Europe/North America (Atkins, 2014). Similar to Asian culture—noting their association with Confucius—Turkish society embraced humanistic opinions of holy men, including Mevlana Celaleddin Rumi (Sertdemir, 2012).

*Motivation.* In collectivist societies, as a result of a failure, people have the tendency to put more effort to attain success. However, individual ability seems to be the reason for success in individualist societies (Gorodnichenko & Roland, 2012). Motivational choices of people also depend on their cultural orientation. For instance, advisements in individualistic cultures display how buying stuff will make people unique, while advisements in collectivistic cultures display how buying stuff will make one similar to others (Kim & Markus, 1999).

*Visual perception.* Visual perceptions of Europeans and Americans are different, and these industrialized societies are more susceptible to illusion than other societies. This finding is based on the Müller-Lyer illusion (Segall, Campbell, & Herskovits, 1966), which occurs by

manipulating the length of two lines. Although both lines have the same length, people perceive one of them as being longer than the other one.

*Self-perception.* Language is a function that may cause a culture-related self-perception. Chinese bicultural people are inclined to express themselves as connected to other people when writing in Chinese; however, they have a tendency to express themselves with regards to their own personhood when writing in English (Ross, Xun, & Wilson, 2002). Perceptions of events are also different in individualistic and collectivistic cultures. When people are the focus of a situation, Chinese are probably talking about this situation from a third-person's point of view, while Americans are probably talking about this situation from a first-person's point of view (Cohen & Gunz, 2002).

*Family.* In a collectivistic family, using direct confrontation is discouraged because it seems rude. Rather than saying "no," people prefer to politely say "you may be right." However, telling the truth is encouraged in an individualistic family. Collectivistic societies both financially and ritually obligate to the family. Participating in family celebrations, including marriage and funeral, and sharing income are more crucial for collectivistic cultures in comparison to individualistic cultures (Hofstede, Hofstede, & Minkov, 2010). In collectivist societies, an individual's spouse or occupation choice is generally made by the family compared to individualist societies (Gorodnichenko & Roland, 2012).

**Empathy and Culture**

The main reason why empathy traits change according to cultures is based on societies being either individualistic or collectivistic (Chopik, O'Brien, & Konrath, 2017). The independent views of Westerners cause them to have higher positive self-views and lower motivations for conformity when compared to non- Westerners (Henrich, Heine, &

Norenzayan, 2010). For instance, individuals who are members of a collectivistic culture may

have a more other-oriented sense of wellbeing, compared to individualistic cultures (Chopik

et al., 2017).

Empathy is more valued and experienced in collectivistic societies than in individualistic

societies (Kitayama, Markus, & Kurokawa, 2000). Chopik, O'Brien, and Konrath (2016)

collected data from 63 nations and noted that empathy is higher in collectivist nations. Theory of

mind enables people to deduce what others think and predict how others will act by taking their

perspective (e.g., Gopnik & Wellman, 1992). A connection exists between PT and culture. In the

study conducted by Wu and Keysar (2011), people from a collectivistic culture, such as Chinese,

are better perspective takers than people from an individualistic culture, such as Americans,

based on the results of a communication game. Heinke and Louis (2009) measured how cultural

background affects individuals' empathy scores. They found that perceived similarity with the

target did not affect PT and empathy scores of collectivistic and individualistic participants,

although in general, empathy is positively correlated to collectivism.

Ma-Kellams and Blascovich (2012) reported on the relationship between cognitive

empathy and culture. They showed that European Americans deduced strangers' emotions more

accurately, while East Asians more accurately deduced the emotions of people who were close to

them.  Moreover, fMRI studies provide information about the similar results. Easterners

empathized with a familiar face displaying an angry expression rather than an unfamiliar face

doing the same (de Greck et al., 2011). Other studies related to empathy showed that East

Asians, compared to European Americans, take into account other people's needs and wishes

(e.g., Yamagishi, 1988), and their own feelings are associated with those of others' (e.g. Uchida,

Norasakkunkit, & Kitayama, 2004). From these previously mentioned points of view, East Asians are more affectively empathetic than Westerners (Atkins, 2014).

There is a positive correlation with collectivism and dispositional intellectual empathy and empathic emotion (Duan, Wei, & Wang, 2008). Besides emotional process, empathy comprises social and cultural evaluation. Collectivism underpins socially conforming attitudes, which are crucial for both affective and cognitive empathy.  While developing empathy, collectivists have a tendency to care for the needs of the collective rather than their own needs. Therefore, collectivistic values might facilitate intellectual and emotional empathy (Mann & Cheng, 2013).

# CHAPTER 3

## PURPOSE AND SIGNIFICANCE

Empathy is a crucial dimension in terms of social relationships, academic success, moral development, and psychological well-being. Empathy studies in the literature underpin why empathy is essential, how it develops, which factors contribute to it, and what the consequences of empathic traits are. Culture plays an important role in developing empathetic feelings; however, there is not much focus on how culture affects empathy in the literature. The main purposes of this study are to identify how empathy traits and cultural orientation scores of young adults differ in Turkey and the USA and to determine the relationship between cultural orientation and empathy. Another purpose of this study is exploring whether demographic factors, such as gender and nationality, influence empathy and cultural orientation of young adults.

The present research is rich in study materials. In the previous studies, various questionnaires were used to measure empathy skills; however, some of them examined either affective empathy or cognitive empathy, while some others examined general empathy scores. In the present study, the most widely used two questionnaires were chosen; thus, empathy traits were evaluated as both general tendencies and affective/cognitive tendencies. Additionally, there are a few studies that directly measure empathy and culture (e.g., Chopik, O'Brien, & Konrath, 2016; Cassels, Chan, Chung, & Birch, 2010; Labouvie-Vief, Diehl, Tarnowski, & Shen, 2000) and most of these studies handled cultural orientation in terms of individualistic and collectivistic dimensions. In the present study, to obtain a broader perspective regarding university students'

cultural orientation, both horizontal and vertical aspects of individualism and collectivism were taken into account by administering the Individualistic and Collectivistic Scale.

Societies' individualistic/collectivistic orientations are important psychological differentiations. Turkey is known as a collectivistic society; however, technological modernization and economic growth throughout decades could have changed Turkish people's cultural orientations. The United States is known as an individualistic society, but increases in the population of immigrants each year could have affected the Americans' cultural orientations. Therefore, the present study is informative because it reports the current degree of horizontal and vertical individualism and collectivism of young adults. Also, it is crucial due to how students' empathy scores change based on their cultural tendencies.

Research showing the importance of empathy is rapidly growing in educational psychology. Therefore, providing detailed information about the relationship between cultural orientation and empathy via the present study might be helpful in attracting attention to cross-cultural educational studies.

## RESEARCH QUESTIONS

### Empathy Differences by Nationality and Gender

**Question 1.** Are there gender differences in empathy that are qualified by the nationality of Turkish and U.S. university students?

**Question 2.** Are there nationality differences in empathy scores of university students?

**Question 3.** Are there gender differences in empathy scores of university students?

### Cultural Orientation Differences by Nationality and Gender

**Question 4.** Are there gender differences in cultural orientation that are qualified by the nationality of Turkish and U.S. university students?

**Question 5.** Are there nationality differences in cultural orientation scores of university students?

**Question 6.** Are there gender differences in cultural orientation scores of university students?

**Relationship of Empathy and Cultural Orientation**

**Question 7.** Is there a relationship between university students' empathy and cultural orientation scores?

**Relationship of Empathy and Age**

**Question 8.** Is there a relationship between university students' empathy scores and their age?

**Relationship of Cultural Orientation and Age**

**Question 9.** Is there a relationship between university students' cultural orientation scores and their age?

## RESEARCH HYPOTHESES

**Hypothesis 1**

There are gender differences in empathy that are qualified by the nationality of Turkish and U.S. university students.

**Hypothesis 2**

**Hypothesis 2.1.** (The Representational Hypothesis) If it is accepted that the United States is an individualistic Western society and Turkey is a collectivistic non-Western society, cognitive (i.e., PT), affective (i.e., EC), and general (i.e., EQ) empathy scores of Turkish participants are higher than U.S. participants.

**Hypothesis 2.2.** (The Attentional Hypothesis). Modernization causes a shift between

beliefs in individualism and collectivism (Hwang, 2005). Specifically, technological

modernization leads to societies resembling each other in terms of cultural orientation. When

modernization theory is taken into account, there are non-significant differences between

Turkey and the United States in terms of cognitive (i.e., PT), affective (i.e., EC), and general

(i.e., EQ) empathy scores.

**Hypothesis 2.3.** No clear prediction is proposed regarding the differences and

similarities in university students' FS and PD scores in Turkey and the United States.

## Hypothesis 3

Given that women are more empathetic than men (e.g., Antinienė & Lekavičienė, 2015;

Rueckert, & Naybar, 2008), it is expected that empathy scores of female participants are higher

than male participants.

## Hypothesis 4

There are gender differences in cultural orientation that are qualified by the nationality of

Turkish and U.S. university students.

## Hypothesis 5

**Hypothesis 5.1.** (The Representational Hypothesis) The United States is known as the

most individualistic society (Snibbe & Markus, 2005), while Turkey is a collectivistic society

(Hofstede, 1980). Based on this information, the hypothesis of this study is that individualism

scores (i.e., VI & HI) of U.S. participants are higher than Turkish participants, while

collectivism scores (i.e., HC & VC) of Turkish participants are higher than U.S. participants.

**Hypothesis 5.2.** (The Attentional Hypothesis) Based on modernization theory, there are

non-significant differences in general individualism (i.e., VI & HI) and collectivism (i.e., HC &

VC) scores of Turkish and U.S. participants.

**Hypothesis 6**

There are gender differences in cultural orientation scores of university students. Because traditionally women are more collectivistic than men (Aizawa, & Whatley, 2006), it is expected that collectivism scores (i.e., HC & VC) of female participants are higher than male participants.

**Hypothesis 7**

There is a negative relationship between university students' empathy scores and individualistic orientation scores, and a positive relationship between students' empathy scores and collectivistic orientation scores in Turkey and the United States.

**Hypothesis 8**

There is not any relationship between students' empathy scores and their age because there is not a broad age range of participants.

**Hypothesis 9**

There is not any relationship between students' cultural orientation scores and their age because there is not a broad age range of participants.

# CHAPTER 4

## METHOD

The process below shows how the research questions and hypotheses were addressed.

### Participants

The research participants consisted of ($N$=255) university students whose ages range from 18 to 25 years old—about half from the United States and half from Turkey.

### Materials

As the study material, several questionnaires were used. Both English and Turkish language versions of study materials exist, and psychometric analysis of both versions was done before. Turkish participants completed the Turkish-language version and American participants completed the English-language version of questionnaires.

**Empathy.** There are various instruments to measure empathy skills, such as questionnaires (e.g. self-, parent-, teacher-, or peer-reports), behavioral responses, and physiological responses (Van Noorden et al., 2015). For this research study, two of the most widely used self-report instruments regarding empathy were administered. The first one is the "Interpersonal Reactivity Index (IRI)" (Davis, 1983), measuring both affective and cognitive components of empathy (Chlopan et al., 1985), and consists of four different subscales: "perspective-taking" (e.g., "I try to look at everybody's side of a disagreement before I make a decision"), "empathic concern" (e.g., "I am often quite touched by things that I see happen"), "personal distress" (e.g., "I sometimes feel helpless when I am in the middle of a very emotional situation"), and "fantasy" (e.g., "Becoming extremely involved in a good book or movie is

somewhat rare for me"). Turkish language version of IRI was prepared by Engeler and Yargıç (2007). In the original scale, the internal consistency of the IRI, with alpha coefficients ranged from .68 to .79 (women: PT = .75, FS = .79, EC = .73, PD = .75; men: PT = .71, FS = .78, EC = .68, PD = .77; Davis, 1980), while Turkish language version of IRI's internal consistency ranged from .60 to .76 (Engeler & Yargıç, 2007). The questionnaire consists of twenty-eight items and participants answered these items via a five-point Likert-type scale. The second one is the "Empathy Quotient (EQ)" (Baron-Cohen & Wheelwright, 2004), measuring both affective and cognitive components of empathy (e.g., "I really enjoy caring for other people"; "I try to solve my own problems rather than discussing them with others"). Turkish language version of EQ was prepared by Bora and Baysan, (2009). In the original scale, α level of EQ was .92 (Baron-Cohen & Wheelwright, 2004), while Turkish language version of EQ was .76 (Bora & Baysan, 2009). The questionnaire consists of sixty items, and participants answered them via a four-point Likert-type scale.

**Culture.** A number of instruments are available for evaluating individualism and collectivism (e.g., Triandis, Leung, Villareal, & Clack, 1985; Hui, 1988; Singelis, 1994; Singelis, Triandis, Bhawuk, & Gelfand, 1995; Kim & Cho, 2011). Some of these scales have a high number of items (e.g., Triandis et al., 1985), some of them have low reliability and others have validity problems. The present study used "Individualism and Collectivism Scale" (Triandis & Gelfand, 1998), which is also named the "Culture Orientation Scale," to collect data for several reasons. First of all, this measurement scale was utilized frequently among scholars (Kemmelmeier et al., 2003; Nelson & Shavitt, 2002; Park, Rehg, & Lee, 2005; Tjosvold, Law, & Sun, 2003). Secondly, the scale was used in different cultures and its stability was high (Chirkov, Lynch, & Niwa, 2005). Thirdly, the scale measures not only individualism-collectivism but also

the horizontal-vertical dimensions. Specifically, the Individualism and Collectivism Scale consists of four different subscales: "horizontal individualism" (e.g., "My personal identity, independent of others, is very important to me"), "vertical individualism" (e.g., "Competition is the law of nature"), "horizontal collectivism" (e.g., "I feel good when I cooperate with others"), and "vertical collectivism" (e.g., "Family members should stick together, no matter what sacrifices are required."). Turkish language version of the Individualism and Collectivism Scale was prepared by Li and Aksoy (2007). Internal consistency of the Individualism and Collectivism Scale, with alpha coefficients ranged from .73 to .82 in the original study (Triandis & Gelfland, 1998), while Turkish language version of it ranged from .71 to .78 (Li & Aksoy, 2007). The questionnaire consists of sixteen items, and participants answered them via a nine-point Likert-type scale.

For the present study, an alpha level of .05 was performed for all statistical analysis.

**Procedure**

The Turkish-language versions of the IRI, the EQ, and the Individualism and Collectivism Scale were administered for Turkish university students. For American students, original questionnaires were administered. The same process was used both in Turkey and the United States. All three questionnaires were completed by students via the Qualtrics survey-hosting provider. The total time for each subject to complete all questionnaires was 20 minutes.

The first criteria of participation for all subjects was enrollment at a university and the second criteria was that participants must be between the ages 18-25 years. At the beginning of the questionnaires, participants were provided with an informed consent document and made aware of the option to withdraw from the study at any time.

**Turkey.** Turkish participants were students enrolled at a university located in the central Anatolia region of Turkey. They agreed to participate in this study voluntarily. The created questionnaire link was distributed through an email message to more than 5000 students by the university committee, and instructors also informed students about the study. Two hundred and eighty-three interested students signed the online informed consent and started to fill out the questionnaires. However, the total number of students who took the survey was 128 because of incomplete responses and reliability check. Another reason for missing data could be that completing the long survey items was excessive for volunteer students, particularly considering that they were in their final weeks of their Spring semester.

**The U.S.A.** U.S. participants were students enrolled at a university located in the Southern part of the United States. They participated in this study in exchange for extra credit for a course. The amount of extra course credit was determined by the respective instructors taking part in the research. Prior to the study, approval was obtained from the instructors and they informed participants verbally or via an email message. The created link of questionnaires then was distributed through an email message to students. One hundred forty-eight interested students signed the online informed consent and started to fill out questionnaires. However, the total number of students who took the survey was 127 because of incomplete responses, attention check, and reliability check. There could be two other reasons for missing data. First, completing all questionnaires took time for the students, especially if they do not need extra credit for their course. Second, the students may have thought that filling in the questionnaires for the assigned extra credit would not be worth it.

# CHAPTER 5

## ANALYSES AND RESULTS

### Demographics

There were 255 young adults ($N$=128 from Turkey, $N$=127 from the United States) that

participated in the study. Most of the students were working on their bachelors' degree (90% of

the Turkish, 94% of the U.S. participants), and most of the students have middle socioeconomic

status (84% of the Turkish, 74% of the U.S. participants). The average age of Turkish

participants was 21.17 years ($SD = 1.19$), while the average age of U.S. participants was 22.44

years ($SD = 2.24$) (Table 5.1).

Table 5.1.

*Demographic Descriptive Statistic of Participants*

| Data | Turkish ($N = 128$) | | U.S. ($N = 127$) | |
|---|---|---|---|---|
| Gender | Female | Male | Female | Male |
| | 64.1% | 35.9% | 63.0% | 37.0% |
| | (n = 82) | (n =46) | (n =80) | (n =47) |
| Education (Bachelor) | 95.1% | 82.6% | 93.8% | 95.7% |
| | (n = 78) | (n = 38) | (n = 75) | (n = 45) |
| Socio-economic status | 87.8% | 78.3% | 72.5% | 78.7% |
| (middle) | (n = 72) | (n = 36) | (n = 58) | (n = 37) |
| Age | $M$=20.94 | $M$=21.59 | $M$=22.41 | $M$=22.49 |
| | $SD$=1.724 | $SD$=1.927 | $SD$=2.390 | $SD$=1.966 |

### Scales Reliabilities

Cronbach's alpha (Cronbach, 1951) was used to evaluate reliability. In the current study,

the internal consistencies of the Interpersonal Reactivity Index (IRI) subscales ranged from α

=.73 to .79 for U.S. participants and from α = .51 to .69 for Turkish participants, these subscales

are shown in Table 5.2. The internal consistency of a different, more general measure of

empathy, the Empathy Quotient (EQ), were higher for both U.S. (α = .87) and Turkish (α = .87)

participants (Table 5.2). The internal consistencies for the cultural orientations subscales ranged

from α = .67 to .72 for U.S. participants and from α = .50 to .65 for Turkish participants (Table

5.3). Overall, the scales are generally at least close to acceptable levels of internal consistency,

although it is noted (and will addressed in the Discussion) that the Turkish sample in particular

has lower internal reliability across all of the scales.

Table 5.2.

*Reliability Analysis for Empathy Quotient Scale and Overall IRI Scale and Its Subscales*

|  |  | Cronbach's Alpha | |
|  |  | U.S. | Turkish |
| Interpersonal Reactivity Index (IRI) | Fantasy (FS) | .739 | .593 |
|  | Perspective Taking (PT) | .795 | .696 |
|  | Empathic Concern (EC) | .768 | .515 |
|  | Personal Distress (PD) | .798 | .682 |
| Empathy Quotient (EQ) |  | .872 | .865 |

*Note.* IRI subscales are different dimensions of empathy.


Table 5.3.

*Reliability Analysis for Overall Cultural Orientation and Its Subscales*

|  |  | Cronbach's Alpha | |
|  |  | U.S. | Turkish |
| Cultural Orientation Subscales | Horizontal Individualism (HI) | .704 | .537 |
|  | Vertical Individualism (VI) | .722 | .583 |
|  | Horizontal Collectivism (HC) | .674 | .503 |
|  | Vertical Collectivism (VC) | .684 | .653 |

*Note.* Cultural orientation subscales are different dimensions of individualism and
collectivism.

## Descriptive Information

The descriptive information of the IRI subscales broken down by nationality and gender is shown in Table 5.4. Table 5.5 uses the same nationality and gender break down to show the descriptive information of the EQ, and Table 5.6 does the same for cultural orientation subscales.

Table 5.4.

*Descriptive Statistics of Nationality and Gender Differences in IRI Subscales*

| IRI Subscales | Nationality | Gender | Mean | *SD* | N |
|---|---|---|---|---|---|
| Fantasy | Turkish | Female | 16.45 | 4.462 | 82 |
| (FS) | | Male | 14.15 | 4.331 | 46 |
| | | Total | 15.62 | 4.535 | 128 |
| | U.S. | Female | 15.52 | 4.816 | 80 |
| | | Male | 14.09 | 5.409 | 47 |
| | | Total | 14.99 | 5.070 | 127 |
| Perspective Taking | Turkish | Female | 17.41 | 3.755 | 82 |
| (PT) | | Male | 16.00 | 4.944 | 46 |
| | | Total | 16.91 | 4.256 | 128 |
| | U.S. | Female | 17.84 | 4.954 | 80 |
| | | Male | 16.98 | 4.725 | 47 |
| | | Total | 17.52 | 4.869 | 127 |
| Empathic Concern | Turkish | Female | 19.82 | 3.794 | 82 |
| (EC) | | Male | 17.74 | 3.356 | 46 |
| | | Total | 19.07 | 3.765 | 128 |
| | U.S. | Female | 21.26 | 4.121 | 80 |
| | | Male | 17.64 | 4.366 | 47 |
| | | Total | 19.92 | 4.549 | 127 |
| Personal Distress | Turkish | Female | 14.15 | 4.828 | 82 |
| (PD) | | Male | 10.54 | 4.092 | 46 |
| | | Total | 12.85 | 4.880 | 128 |
| | U.S. | Female | 9.91 | 5.306 | 80 |
| | | Male | 7.68 | 4.723 | 47 |
| | | Total | 9.09 | 5.193 | 127 |

Table 5.5.

*Descriptive Statistics of Nationality and Gender Differences in EQ Scale*

| Empathy Scales | Nationality | Gender | Mean | *SD* | N |
|---|---|---|---|---|---|
| Empathy Quotient (EQ) | Turkish | Female | 45.91 | 11.022 | 82 |
| | | Male | 40.37 | 12.450 | 46 |
| | | Total | 43.92 | 11.813 | 128 |
| | U.S. | Female | 47.55 | 10.867 | 80 |
| | | Male | 38.28 | 10.948 | 47 |
| | | Total | 44.12 | 11.748 | 127 |

Table 5.6.

*Descriptive Statistics of Nationality and Gender Differences in Cultural Orientation Subscales*

| Cultural Orientation Subscales | Nationality | Gender | Mean | *SD* | N |
|---|---|---|---|---|---|
| Horizontal Individualism (HI) | Turkish | Female | 25.59 | 5.477 | 82 |
| | | Male | 25.00 | 4.402 | 46 |
| | | Total | 25.38 | 5.107 | 128 |
| | U.S. | Female | 27.49 | 4.669 | 80 |
| | | Male | 27.94 | 3.948 | 47 |
| | | Total | 27.65 | 4.405 | 127 |
| Vertical Individualism (VI) | Turkish | Female | 24.16 | 6.062 | 82 |
| | | Male | 24.52 | 5.063 | 46 |
| | | Total | 24.29 | 5.706 | 128 |
| | U.S. | Female | 20.54 | 4.836 | 80 |
| | | Male | 23.55 | 5.340 | 47 |
| | | Total | 21.65 | 5.217 | 127 |
| Horizontal Collectivism (HC) | Turkish | Female | 29.00 | 4.046 | 82 |
| | | Male | 29.37 | 4.424 | 46 |
| | | Total | 29.13 | 4.172 | 128 |
| | U.S. | Female | 29.36 | 4.484 | 80 |
| | | Male | 27.87 | 3.585 | 47 |
| | | Total | 28.81 | 4.222 | 127 |
| Vertical Collectivism (VC) | Turkish | Female | 30.05 | 4.904 | 82 |
| | | Male | 28.80 | 5.484 | 46 |
| | | Total | 29.60 | 5.133 | 128 |
| | U.S. | Female | 29.80 | 4.178 | 80 |
| | | Male | 28.36 | 3.859 | 47 |
| | | Total | 29.27 | 4.107 | 127 |

**Empathy Differences by Nationality and Gender**

The research questions regarding empathy differences by nationality and gender were addressed below.

**Question 1.** Are there gender differences in empathy that are qualified by the nationality of Turkish and U.S. university students?

**Question 2.** Are there nationality differences in empathy scores of university students?

**Question 3.** Are there gender differences in empathy scores of university students?

An independent 2x2 full factorial multivariate analysis of variance (MANOVA) was performed to assess whether empathy traits (i.e., FS, EC, PD, PT) and another general measure of empathy (the EQ) could be predicted by nationality (Turkish versus U.S.), gender (female versus male), and the interaction of nationality and gender. The two-way interaction was non-significant, Wilk's $\Lambda = .972$, $F(5, 247) = 1.423$, $p = .216$, $\eta_p^2 = .028$. Thus, there is no support for hypothesis 1, and the interaction term was removed from the model based on the model-fitting procedure to assess hypotheses 2 and 3.

This two-way MANOVA revealed a significant multivariate main effect for nationality, Wilk's $\Lambda = .833$, $F(5, 248) = 9.962$, $p < .001$, $\eta_p^2 = 0.167$. Thus, there are at least some nationality differences across all the empathy scores, but the directions were inconsistent. Specifically, there was significant univariate main effect of nationality for PD ($F(1, 252) = 37.826$, $p < .001$, $\eta_p^2 = 0.131$) such that Turkish students were high than U.S. students, and a non-significant but trending effect for EC ($F(1, 252) = 3.178$, $p = .076$, $\eta_p^2 = 0.12$) but with U.S. students scoring non-significantly higher than Turkish students. There were no significant differences for the remaining empathy scales (FS, PT, EQ).

There was also a significant multivariate main effect for gender, Wilk's $\Lambda = .781$, $F(5,

248) = 13.945, $p < .001$, $\eta_p^2 = 0.219$. Thus, there was support for hypothesis 3 that there are gender differences across all the empathy scores, with women showing greater empathy. Specifically, there were a significant univariate main effects of gender for FS ($F(1, 252) = 9.207$, $p = .003$, $\eta_p^2 = 0.035$), EC ($F(1, 252) = 30.856$, $p < .001$, $\eta_p^2 = 0.109$), PD ($F(1, 252) = 21.377$, $p < .001$, $\eta_p^2 = 0.078$), and EQ ($F(1, 252) = 25.678$, $p < .001$, $\eta_p^2 = 0.092$), and a marginal but non-significant effect for PT ($F(1, 252) = 3.686$, $p = .056$, $\eta_p^2 = 0.014$) with women scoring higher than men on each of these scale.

**Cultural Orientation Differences by Nationality and Gender**

The research questions regarding cultural orientation differences by nationality and gender were addressed below.

**Question 4.** Are there gender differences in cultural orientation that are qualified by the nationality of Turkish and U.S. university students?

**Question 5.** Are there nationality differences in cultural orientation scores of university students?

**Question 6.** Are there gender differences in cultural orientation scores of university students?

An independent 2x2 full factorial multivariate analysis of variance (MANOVA) was performed to assess whether cultural orientation subscales (i.e., HI, VI, HC, and VC) could be predicted by nationality (Turkish versus U.S.), gender (female versus male), and the interaction of nationality and gender. The two-way interaction was non-significant, Wilk's $\Lambda = .974$, $F(4, 248) = 1.685$, $p = .154$, $\eta_p^2 = .026$. Thus, there is no support for hypothesis 4, and the interaction term was removed from the model based on the model-fitting procedure to assess hypotheses 5 and 6.

This two-way MANOVA revealed a significant multivariate main effect for nationality, Wilk's $\Lambda$ = .830, $F(4, 249)$ = 12.705, $p < .001$, $\eta_p^2$ = 0.170. Thus, there was partial support for hypothesis 5 that there are at least some nationality differences across all the cultural orientation scores, but the directions were inconsistent. Specifically, there was significant univariate main effect of nationality for VI ($F(1, 252)$ = 15.298, $p < .001$, $\eta_p^2$ = 0.057) such that Turkish students were higher than U.S. students, and a significant univariate main effect for HI ($F(1, 252)$ = 14.496, $p < .001$, $\eta_p^2$ = 0.054) such that U.S. students were higher than Turkish students. There were no significant differences for the remaining cultural orientation subscales (HC and VC).

There was also a significant multivariate main effect for gender, Wilk's $\Lambda$ = .948, $F(4, 249)$ = 3.440, $p$ = .009, $\eta_p^2$ = 0.052. Thus, there was support for hypothesis 6 that there are gender differences across some of the cultural orientation scores. Specifically, there were significant univariate main effects of gender for VI ($F(1, 252)$ = 5.768, $p$ = .017, $\eta_p^2$ = .022) and VC ($F(1, 252)$ = 4.994, $p$ = .026, $\eta_p^2$= .019). Women showed significantly greater vertical collectivistic orientation, while men showed significantly greater vertical individualistic orientation.

**Relationship of Empathy and Cultural Orientation**

The research question regarding relationship of empathy and cultural orientation was addressed below.

**Question 7.** Is there a relationship between university students' empathy and cultural orientation scores?

Pearson product-moment correlation coefficients between each empathy measure (the IRI subscales of fantasy (FS), perspective taking (PT), empathic concern (EC), and personal distress(PD), and the Empathy Quotient (EQ) scale) and each cultural orientation subscale

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(Horizontal individualism (HI), vertical individualism (VI), horizontal collectivism (HC), and vertical collectivism (VC)) are shown in Table 5.7. EQ, PT, and EC had significant negative correlations with VI and significant positive correlations with HC indicating that greater general empathy quotients and greater cognitive and affective empathy were associated with less vertical individualism and were also associated with greater horizontal collectivism. PD had a significant positive correlation with VI indicating that greater PD was significantly associated with greater vertical individualism. Thus, there was a support for hypothesis 7 that there are some negative relationships between empathy and individualistic orientation, and a positive relationship between students' empathy and collectivistic orientation in this sample of university students.

Table 5.7.

*Pearson Correlations of Empathy and Cultural Orientation Subscales*

|  | VI | HC | VC | FS | PT | EC | PD | EQ |
|---|---|---|---|---|---|---|---|---|
| HI | .321** | .091 | .161* | -.058 | .023 | -.020 | -.109 | .011 |
| VI |  | .005 | .156* | -.034 | **-.143*** | **-.190**** | **.160*** | **-.143*** |
| HC |  |  | .475** | .064 | **.206**** | **.348**** | -.010 | **.424**** |
| VC |  |  |  | .070 | .101 | **.330**** | .093 | **.280**** |
| FS |  |  |  |  | .123 | .308** | .206** | .182** |
| PT |  |  |  |  |  | .401** | -.252** | .474** |
| EC |  |  |  |  |  |  | .041 | .579** |
| PD |  |  |  |  |  |  |  | -.159* |

*Note*. N=255, HI=Horizontal Individualism, VI=Vertical Individualism, HC=Horizontal Collectivism, VC= Vertical Collectivism, FS=Fantasy, PT=Perspective Taking, EC=Empathic Concern, PD=Personal Distress, EQ= Empathy Quotient **$p<0.01$, *$p<0.05$

In psychology correlations of .1 or more are considered small, .3 or more is medium, .5 or more is large (Cohen, 1988). Table 5.7 also reveals some of the patterns of relationships of the

subscales intended to represent cultural orientation and (separately) empathy. It shows that the collectivistic orientation scales (HC and VC) have a medium sized correlation with each other, as do the individualistic orientation scales (HI and VI), and there were two unexpected significant although small correlations between the vertical collectivism measures and both of the individualism measures (HI and VI).

Most of the empathy measures have positive correlations with each other in the small and medium-sized range (although non-significantly for perspective taking and fantasy), but with the notable exception of the patterns of correlations for personal distress (PD). PD has a significant and medium-sized positive relationship with FS and no relationship with EC, but a significant and small negative relationship with the EQ and a significant and medium-sized negative relationship with PT. Thus, PD is the most inconsistent subscale with the other measures of types of empathy.

**Empathy Differences by Nationality after Controlling for Culture**

A factorial multivariate analysis of covariance (MANCOVA) was conducted to determine whether there is a statistically significant difference between Turkish and U.S. participants on the empathy traits while controlling for culture. MANCOVA results indicated that there was a main effect of nationality only on personal distress $F(1, 249) = 23.106$, $p < 0.001$, $\eta_p^2 = .085$ after controlling for culture (HI, VI, HC, and VC). Turkish participants obtained significantly higher personal distress scores ($M=12.85$, $SD=4.88$) than their U.S. counterparts ($M=9.09$, $SD=5.19$). This result suggested that even when adjusting for an individual's cultural orientation, Turkish participants had significantly higher personal distress than U.S. participants. However, when adjusting for cultural orientation, Turkish participants did not significantly differ on EQ, $F(1, 249) = .900$, $p = 0.765$, $\eta_p^2 < .001$ or any of the other IRI subscales of FS, $F(1, 249) = .842$, $p =$

0.360, $\eta_p^2$=.003, PT, $F$ (1, 249) = .180, $p$ = 0.672, $\eta_p^2$=.013, EC, $F$ (1, 249) = 1.781, $p$ = 0.360, $\eta_p^2$=.007).

**Empathy and Cultural Orientation Differences by Demographic Factors**

Further exploratory analyses were conducted to see if there were any differences in empathy or cultural orientation by age.

**Relationship of Empathy and Age.** The research question regarding the relationship of empathy and age is addressed below.

*Question 8.* Is there a relationship between university students' empathy scores and their age?

Pearson product-moment correlation coefficients were used to measure the relationship between each empathy measure (the IRI subscales of FS, EC, PD, and PT and the EQ scale) and age. The only significant relationship between age and any empathy measures was that PD that had a significant negative correlation with age $r$(255) = -.210, $p$ < .001 indicating that younger participants had greater PD.

**Relationship of Cultural Orientation and Age**. The research question regarding the relationship of cultural orientation and age was addressed below.

*Question 9.* Is there a relationship between university students' cultural orientation scores and their age?

Pearson product-moment correlation coefficients were used to measure the relationship between each cultural orientation subscales (HI, VI, HC, and VC) and age. The only significant relationship between age and any cultural orientation measures was that VI was a significant negative correlation with age $r$(255)= -0.146, $p$ = .020, indicating that younger participants had greater vertical individualism.

# CHAPTER 6

## DISCUSSION

Across behavioral disciplines, researchers have primarily studied western, educated, industrialized, rich, and democratic people who are not representative of all human beings. Although they have studied small samples, they have also generalized the results universally, which is not representative of other populations (Henrich, Heine, & Norenzayan, 2010). To overcome these shortcomings, the present study mainly aimed to identify empathy traits of university students in two cultures that are significantly different from each other in several aspects, including region, religion, and language.

Empathy can be, in general, described as identifying, understanding, and experiencing the emotional situations of others (Decety & Moriguchi, 2007). It is an essential social cognitive ability that has emerged to facilitate the adaptation of the individual to social life (Bora & Baysan, 2009). Empathy is positively related to well-being and volunteer rates and negatively related to violent crime (Bach, Defever, Chopik, & Konrath, 2017). Also, empathy is associated with some positive behavioral outcomes, including emotional intelligence (Mayer, Caruso, & Salovey, 2000). A debate exists to determine a unique operational description of empathy. However, dispositional empathy is accepted as the inclination to respond to another's noticed experience (Davis, 1983). Various psychometric instruments have been developed to measure empathy (e.g., Hogan, 1969; Mehrabian & Ebstein, 1972). The most prominent scales- the "Interpersonal Reactivity Index" (IRI; Davis, 1983) and the "Empathy Quotient" (EQ; Baron-Cohen & Wheelwright, 2004) were used in this study. EQ measures purely on empathy, while

IRI measures empathy with subscales-perspective-taking, empathic concern (EC), fantasy scale (FS), and personal distress (PD).

PT comprises a tendency to adopt someone else's point of view, and it is highly related to the cognitive aspect of empathy. EC expresses interest, compassion, and warmth toward others in difficult situations, and it is highly related to the affective aspect of empathy. FS includes identification with the feelings of imaginary characters in fiction. PD refers to the personal discomfort and anxiety towards other's emotionally challenging social experience (Davis, 1983). Although PD seems an emotional response related to empathy, it is qualitatively distinct from empathy. This is because high empathy causes altruistic behavior, while high PD does not (Batson, O'Quin, Fultz, Vanderplas, & Isen, 1983). The belief is that people experiencing PD are interested in decreasing their own negative emotional states (Batson, 1991). PD has a connection between some social timidities, including shyness, social anxiety, and introversion. Thus, a relationship between prosocial behavior and PD does not exist (Davis, 1983). Previous studies showed that Turkish university students obtained higher scores in PD (e.g., Engeler, 2005, $M$=15.29, $SD$=4.57; Arıdag & Yuksel, 2010, $M$=12.33, $SD$=4.17), compared to Western university students, such as in Canada (e.g., Book & Quinsey, 2004, $M$=10.03, $SD$=4.58). The current study supports the previous studies with the findings that Turkish students obtained higher scores in PD ($M$=12.852, $SD$=.445) than American students ($M$=9.087, $SD$=.447). Even after controlling for culture, Turkish participants acquired a significantly higher mean in PD compared to U.S. participants; however, there were non-significant differences between other empathy scales and nationality. Empathy scores of Turkish and American young adults were highly similar. It is unclear whether self-report questionnaires sufficiently distinguish PD and

empathy (Zhou, Valiente, & Eisenberg 2003). The present study agrees with this claim by showing that PD is the most inconsistent subscale with the other measures of types of empathy.

Culture is among the factors influencing empathy development. Hofstede, Hofstede, and Minkov (2010) define culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (p.6). There are some specific characteristics of cultures. One of them is individualism/collectivism, which has polythetic compositions (Triandis, 1995). A person who lives in an individualistic society may feel as a collectivistic. So, Triandis and Gelfand (1998) highlighted that examining individualism and collectivism with horizontal and vertical aspects is necessary—HC, VC, HI, and VI. Horizontal collectivists underpin high equality among all (Triandis & Bhawuk, 1997). The happiness of the group member is important, but horizontal collectivists do not feel dependent on their in-group (Triandis & Gelfand, 1998). Vertical collectivists have a tendency to sacrifice themselves for the sake of the group members (Triandis & Bhawuk, 1997). They feel dependent on their group and believe that the happiness of the group is more important than their personal happiness. Horizontal individualists depend on themselves rather than on others (Chiou, 2001); however, obtaining high status or becoming different from others is not necessary for horizontal individualists (Triandis & Gelfand, 1998). Vertical individualists care for having high status and becoming different from others (Triandis & Gelfand, 1998). Vertically individualistic (VI) people compare themselves to others and strive to be privileged (Chiou, 2001). The results of the current study showed that collectivism scores of participants from both countries were higher than their individualism scores, and they were non-significant differences between participants' collectivism scores and nationality. However, there significant differences between participants'

individualism scores and their nationality. The study results showed that American participants obtained higher scores in HI, while Turkish participants obtained higher scores in VI.

Several factors affect empathy traits of individuals. The current study mainly aimed to show whether one of these factors is cultural orientation. According to the study results, cognitive empathy (i.e., PT), affective empathy (i.e., EC), and general empathy scores (EQ) have a significant negative relationship with VI. Feelings such as, "When another person does better than I do, I get tense and aroused; winning is everything" may have caused young adults to have lower empathy. In contrast, cognitive empathy (i.e., PT), affective empathy (i.e., EC), and general empathy scores (EQ) have a significant positive relationship with HC. Such feelings as "I feel good when I cooperate with others" may have caused people to have higher empathy. Decreases in scores on VI tended to be associated with increases in scores on PT, EC, and EQ, while increases in scores on HC tended to be associated with increases in scores on PT, EC, and EQ. This may be because empathy requires putting ourselves into someone's situation. Believing "competition is a law of nature (VI)" requires ignoring other people's feelings, and believing "pleasure is spending time with others (HC)" is likely to cause one to take into account other people's thinking, which is highly meaningful and the major results of this study.

Furthermore, there is a high and significant relationship between PD (e.g., being in a tense emotional situation scares me; I tend to lose control during emergencies) and VI (e.g., winning is everything; competition is the law of nature) in the present study, and Turkish participants obtained higher scores in both PD and VI than American participants, which is one of the major results of the study. Also, besides running analysis to attain main goals of the present study, some additional analyses were conducted to comprehend whether other factors,

such as age, affect cultural orientation and empathy. Regarding age, younger participants get higher PD and higher VI.

The common point of VI and PD is that both are self-focused traits. The result of the current study can be interpreted such that U.S. young adults are less self-focused than Turkish young adults. On the one hand, Turkey is a collectivistic society based on Hofstede scale (Hofstede, 1980). On the other hand, the fact that there were increases in VI and PD of young adults in Turkey might not be surprising. These findings may be interpreted to mean that after high school, young adults are aware of the existence of the competition to be accepted into prestigious universities or to find a decent job. Thus, this competitive atmosphere may have affected their individualistic points of view. Another explanation may be modernization theory (Inkeles, 1966), which involves urbanization and freedom of speech. Modernization causes an alteration in ideas from collectivism to individualism (Hwang, 2005). Many regions in the world encountered this shift (Triandis, McCusker, & Hui, 1990). This may be because of elevation in national wealth (Hofstede, 1991). Technological modernization, particularly, makes societies more and more similar. Turkey is a developed, industrialized, and modern country currently. A lot of cultural exchange happened in Turkey due to economic and politic affairs between Turkey and Western countries over many years. Thus, there can be a shift from collectivism to individualism in some aspects. Similarly, Yoon (2014) found that Korean youths scored high on vertical individualism although Korea is known as a collectivistic society. Furthermore, it was expected that U.S. participants would be vertically individualistic. However, the ratings of individualism scores were lower than those of collectivism scores among the U.S. sample. This may be because the U.S. sample was collected from the Southern part of the U.S.A., which includes the cultural nature of collectivism (e.g., Hofstede, 1980; Triandis, 1989).

Previously conducted research emphasizes a gender gap in empathy traits (Wehrens et al., 2010). Studies show that women are more empathetic (e.g., Antinienė & Lekavičienė, 2015; Aydin, 2011; Han et al., 2008; Endresen & Olweus, 2001, Mestre, Samper, Frías, & Tur, 2009; Rueckert, & Naybar, 2008; Toussaint & Webb, 2005) and emotional (e.g. Damon & Lerner, 2008). The current study has parallel results with the previous ones. Female participants obtained higher mean scores than male participants in all empathy scales, including FS, EC, PT, PD, and EQ (Table 4.5). Only PT score was not statistically significant. Another explanation may be that women have the inclination to report a higher empathetic responsiveness in the self-report surveying (Eisenberg & Lennon, 1983; Han et al., 2008). Additionally, findings indicated that while male participants scored higher in vertical individualism (e.g., it is important that I do my job better than others) than female participants, female participants scored higher in vertical collectivism (e.g., parents and children must stay together as much as possible) than male participants. This can be explained that traditionally, women are more collectivistic than men (Aizawa, & Whatley, 2006).

Empathic concern (EC) is related to other-directed behavior. People who have EC worry about someone else's emotional states and try to eliminate distress of another (Eisenberg et al., 1994). Similarly, vertically collectivistic people have a tendency to sacrifice themselves for the sake of other in-group members (Chiou, 2001). Parallel to these explanations, the result of the present study showed a positive relationship between EC and VC. One logical explanation is that both subscales (i.e., EC & VC) require altruistic behavior, opposite to the relationship between PD and VI that require egoistic behavior.

Some subscales in the Turkish language study materials showed poor reliability. This may be an indicator that the cross-cultural adaptation of survey items is not conceptually or

semantically equivalent to the source language. Given that there are cultural differences among countries, the translation process requires careful steps to follow. For instance, some cultures are sensitive about not sharing personal information, or people may differently interpret the same question. There are different suggested methods of translation, including "decentering" (Werner & Campbell, 1970), "direct translation" (Sechrest, Fay, & Zaidi, 1972), and "Committee and Modified Committee Translation" (Brislin, 1980; Guillemin, Bombardier, & Beaton 1993). Other translation methods that are commonly used by researchers include "Close and Literal Translation," "Advance Translation," "Passing on the Translation to Fielding Institutes," and "Translation of Finalized Questionnaires 'on the fly'." (Harkness & Schoua-Glusberg, 1998). Getting feedback from bilingual respondents and comparing their answers for survey items from both languages are very useful methods to increase reliability. Most of the questionnaires that were used in the present study were not administered to bilingual people; instead, a few bilinguals' viewpoints regarding surveys were obtained by researchers. It can be interpreted that cross-cultural adaptation of survey items did not ensure consistency in the content of the original English questionnaires and their Turkish language versions. It may mean that the questionnaires were not well translated. For instance, the authors Li and Aksoy (2007) who translated the Individualism and Collectivism Scale noted that they used the translation and back translation method, but they emphasized that it is not satisfactory to guarantee that participants in various cultures interpreted each item of the scale in an equivalent manner. In another culture, to find an equivalent concept of some terms, including ''pleasure'' and ''others'' might be very hard. For cross-cultural studies, additional measures should be considered to attain equivalent meaning (Li & Aksoy, 2007). There may be ways Turkish participants see certain items differently. This would lower reliability because people's answers are not consistent across items if they interpret

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an item as asking a different question. For example, Engeler and Yargıç (2007) who translated the IRI mentioned that three scale items showed poor performance, but they decided to keep these items on the scale after noticing means of corrected item-total correlations was not low. These problematic items may have had a large impact on the reliability of the current study scales. The IRI and the Individualism and Collectivism Scale have respectively, 28 and 16 items; however, 60 items exist in the EQ. Results showed that EQ has higher reliability in both countries, compared to other two scales. Therefore, it can be deduced that even a few problematic items of the IRI and the Individualism and Collectivism Scale might have caused a substantial impact on the overall reliability. For the study questionnaires, conducting psychometric analysis, such as factor analysis, is strongly recommended for future studies.

To sum up, the individualism-collectivism constructs have been used to define, interpret, and anticipate variations in human behavior, socialization, communication and so on (e.g., Oyserman, Coon, & Kemmelmeier, 2002). Societies' individualism versus collectivism is an important psychological differentiation that affects empathy traits. However, there are a few studies that directly measure empathy and individualism versus collectivism (e.g., Chopik, O'Brien, & Konrath, 2016; Cassels, Chan, Chung, & Birch, 2010; Labouvie-Vief, Diehl, Tarnowski, & Shen, 2000). Turkey has been accepted as a collectivistic society according to cultural patterns of loyalty to family (Kagitcibasi, 1982, 1996). Turkish researchers believed that "sharing resources" is the main element of Turkish-style collectivism (Kusdil, 1991). Some studies support this idea. For instance, based on Hofstede (1980) scale, Turkey is a collectivistic country with a score of 37. Also, in another index of 39 countries, Turkey ranked the third most collectivistic country (Oishi, Diener, Suh & Lucas, 1999). The United States is an individualistic society. Hofstede (1980) scale displayed that the United States scored 91, and it was the most

individualistic country. Although such previously published research noted the huge differences between Turkey and the United States., these two countries obtained similar results related to individualism and collectivism in a meta-analysis of 46 countries (e.g., Oyserman, Coon, & Kemmelmier, 2002). Given that there is a disagreement among previous studies, examining only individualism versus collectivism is not enough to evaluate cultural orientation. The present study was important in terms of giving information about current ranking of individualism and collectivism with horizontal and vertical aspects of young adults in Turkey and the United States.

**Implications**

Empathy is crucial regarding achievement and social relationships for any grade level student. Elevation in empathy skills of students gives the impression of increased peaceful social environment and academic success.  Noticing different elements in the collectivistic- and individualistic-oriented students implies that empathy traits might be culture-specific. Identification of students' cultural orientation helps to provide appropriate practices to increase students' empathy skills.

The implications of the current results regarding higher scores of female students on empathy scales in comparison with male students strongly parallel previous studies in the literature. This outcome should be considered in the development of empathy-related educational programs, primarily focusing on male students.

High scores in vertical individualism of Turkish participants ensure a novel proof to the cross-cultural literature. Although Turkey is known as a collectivistic society, there is a rapid change in modernization and industrialization currently. The transition may have caused an increase in competition and an important alteration in culture.

**Limitations and Future Research Directions**

By conducting three different questionnaires, the comprehensiveness of the study was increased and more information related to participants was obtained. Several limitations, however, exist in the study.

**Modality limitations.** Measuring empathy by self-reports requires trust, given that the subject is the only person who can explain his/her thinking. Also, collecting data via self-reports is time-saving, and more participants can be gathered to study. Self-reports, however, might not be accurate and might contain bias. For example, people can exaggerate their empathetic feelings. For future studies, measuring empathy through close friends or family members, looking at facial expressions, or interviewing participants while also using self-reports may offer more confident results. Since the study questionnaires may not have been well translated, conducting factor analysis is suggested for future studies.

**Demographic characteristics limitations.** In addition to the limitations of the study material, there is a lack of information related to the personal variables of participants. For instance, participants could be asked about marital status in addition to asking about gender, age, and academic success. This study was conducted with only young adults. Sample size and age variation of participants may be increased for future studies in order to offer researchers a broader viewpoint related to empathy traits. Moreover, undergraduate students who belonged to two specific universities may not be good samples to represent both Turkey and the United States; therefore, replication studies with different samples can be suggested. Future studies could gather participants from various regions of countries. Moreover, an equal number of female and male participants should be considered for future studies.

**Conclusion**

The present study reports that internal cultural orientations of young adults are predictors of their empathy traits. The first result of this research is that individualism is significant in predicting affective and cognitive empathy negatively. Second, findings also show that female students tend to have higher collectivistic orientation and empathy compared to male students. Third, vertical individualism is negatively related to age and positively related personal distress. Last, findings also indicate a dynamic and rapid change in cultural orientation of Turkish students toward individualism.

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# APPENDICES

## Appendix A

**THE UNIVERSITY OF ALABAMA** | *Office of the Vice President for*
**Research & Economic Development**
Office for Research Compliance

March 3, 2017

Nahide Gungordu
Dept. of ESPRMC
College of Education
Box 870231

Re: IRB#: 17-OR-092 "Affective and Cognitive Empathy in University Students: A Cross-Cultural Study"

Dear Nahide Gungordu:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of written documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on March 1, 2018. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent/assent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

THE UNIVERSITY OF **ALABAMA** | *Office of the Vice President for*
**Research & Economic Development**
**Office for Research Compliance**

May 24, 2017

Nahide Gungordu
Dept. of ESPRMC
College of Education
Box 870231

Re: IRB#: 17-OR-092 A "Affective and Cognitive Empathy in University Students: A Cross-Cultural Study"

Dear Ms. Gungordu:

The University of Alabama Institutional Review Board has reviewed the revision to your previously approved expedited protocol. The board has approved the change in your protocol.

Please remember that your approval period expires one year from the date of your original approval, 3/2/2017 not the date of this revision approval.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,

Appendix B

## INTERPERSONAL REACTIVITY INDEX
(Davis, 1983)

| ITEMS | Does Not Describes Me | Describes Me Slightly Well | Describes Me Moderately Well | Describes Me Very Well | Describes Me Extremely Well |
|---|---|---|---|---|---|
| 1. I daydream and fantasize, with some regularity, about things that might happen to me. | | | | | |
| 2. I often have tender, concerned feelings for people less fortunate than me. | | | | | |
| 3. I sometimes find it difficult to see things from the "other guy's" point of view. | | | | | |
| 4. Sometimes I don't feel very sorry for other people when they are having problems. | | | | | |
| 5. I really get involved with the feelings of the characters in a novel. | | | | | |
| 6. In emergency situations, I feel apprehensive and ill-at-ease. | | | | | |
| 7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it. | | | | | |
| 8. I try to look at everybody's side of a disagreement before I make a decision. | | | | | |
| 9. When I see someone being taken advantage of, I feel kind of protective towards them. | | | | | |
| 10. I sometimes feel helpless when I am in the middle of a very emotional situation. | | | | | |
| 11. I sometimes try to understand my friends better by imagining how things look from their perspective. | | | | | |
| 12. Becoming extremely involved in a good book or movie is somewhat rare for me. | | | | | |
| 13. When I see someone get hurt, I tend to remain calm. | | | | | |
| 14. Other people's misfortunes do not usually disturb me a great deal. | | | | | |

| ITEMS | Does Not Describes Me | Describes Me Slightly Well | Describes Me Moderately Well | Describes Me Very Well | Describes Me Extremely Well |
|---|---|---|---|---|---|
| 15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments. | | | | | |
| 16. After seeing a play or movie, I have felt as though I were one of the characters. | | | | | |
| 17. Being in a tense emotional situation scares me. | | | | | |
| 18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. | | | | | |
| 19. I am usually pretty effective in dealing with emergencies. | | | | | |
| 20. I am often quite touched by things that I see happen. | | | | | |
| 21. I believe that there are two sides to every question and try to look at them both. | | | | | |
| 22. I would describe myself as a pretty soft-hearted person. | | | | | |
| 23. When I watch a good movie, I can very easily put myself in the place of a leading character. | | | | | |
| 24. I tend to lose control during emergencies. | | | | | |
| 25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while. | | | | | |
| 26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me. | | | | | |
| 27. When I see someone who badly needs help in an emergency, I go to pieces. | | | | | |
| 28. Before criticizing somebody, I try to imagine how I would feel if I were in their place. | | | | | |

## EMPATHY QUOTIENT
### (Baron-Cohen & Wheelwright 2004)

| ITEMS | Strongly Disagree | Slightly Disagree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|
| 1. I can easily tell if someone else wants to enter a conversation. | | | | |
| 2. I prefer animals to humans. | | | | |
| 3. I try to keep up with the current trends and fashions. | | | | |
| 4. I find it difficult to explain to others things that I understand easily, when they don't understand it the first time. | | | | |
| 5. I dream most nights. | | | | |
| 6. I really enjoy caring for other people. | | | | |
| 7. I try to solve my own problems rather than discussing them with others. | | | | |
| 8. I find it hard to know what to do in a social situation. | | | | |
| 9. I am at my best first thing in the morning. | | | | |
| 10. People often tell me that I went too far in driving my point home in a discussion. | | | | |
| 11. It doesn't bother me too much if I am late meeting a friend. | | | | |
| 12. Friendships and relationships are just too difficult, so I tend not to bother with them. | | | | |
| 13. I would never break a law, no matter how minor. | | | | |
| 14. I often find it difficult to judge if something is rude or polite. | | | | |
| 15. In a conversation, I tend to focus on my own thoughts rather than on what my listener might be thinking. | | | | |
| 16. I prefer practical jokes to verbal humor. | | | | |
| 17. I live life for today rather than the future. | | | | |
| 18. When I was a child, I enjoyed cutting up worms to see what would happen. | | | | |
| 19. I can pick up quickly if someone says one thing but means another. | | | | |

| ITEMS | Strongly Disagree | Slightly Disagree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|
| 20. I tend to have very strong opinions about morality. | | | | |
| 21. It is hard for me to see why some things upset people so much. | | | | |
| 22. I find it easy to put myself in somebody else's shoes. | | | | |
| 23. I think that good manners are the most important thing a parent can teach their child. | | | | |
| 24. I like to do things on the spur of the moment. | | | | |
| 25. I am good at predicting how someone will feel. | | | | |
| 26. I am quick to spot when someone in a group is feeling awkward or uncomfortable. | | | | |
| 27. If I say something that someone else is offended by, I think that that's their problem, not mine. | | | | |
| 28. If anyone asked me if I liked their haircut, I would reply truthfully, even if I didn't like it. | | | | |
| 29. I can't always see why someone should have felt offended by a remark. | | | | |
| 30. People often tell me that I am very unpredictable. | | | | |
| 31. I enjoy being the center of attention at any social gathering. | | | | |
| 32. Seeing people cry doesn't really upset me. | | | | |
| 33. I enjoy having discussions about politics. | | | | |
| 34. I am very blunt, which some people take to be rudeness, even though this is unintentional. | | | | |
| 35. I don't find social situations confusing. | | | | |
| 36. Other people tell me I am good at understanding how they are feeling and what they are thinking. | | | | |
| 37. When I talk to people, I tend to talk about their experiences rather than my own. | | | | |
| 38. It upsets me to see an animal in pain. | | | | |
| 39. I am able to make decisions without being influenced by people's feelings. | | | | |
| 40. I can't relax until I have done everything I had planned to do that day. | | | | |
| 41. I can easily tell if someone else is interested or bored with what I am saying. | | | | |
| 42. I get upset if I see people suffering on news programs. | | | | |
| 43. Friends usually talk to me about their problems as they say that I am very understanding. | | | | |
| 44. I can sense if I am intruding, even if the other person doesn't tell me. | | | | |

| ITEMS | Strongly Disagree | Slightly Disagree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|
| 45. I often start new hobbies, but quickly become bored with them and move on to something else. | | | | |
| 46. People sometimes tell me that I have gone too far with teasing. | | | | |
| 47. I would be too nervous to go on a big rollercoaster. | | | | |
| 48. Other people often say that I am insensitive, though I don't always see why. | | | | |
| 49. If I see a stranger in a group, I think that it is up to them to make an effort to join in. | | | | |
| 50. I usually stay emotionally detached when watching a film. | | | | |
| 51. I like to be very organized in day-to-day life and often makes lists of the chores I have to do. | | | | |
| 52. I can tune into how someone else feels rapidly and intuitively. | | | | |
| 53. I don't like to take risks. | | | | |
| 54. I can easily work out what another person might want to talk about. | | | | |
| 55. I can tell if someone is masking their true emotion. | | | | |
| 56. Before making a decision, I always weigh up the pros and cons. | | | | |
| 57. I don't consciously work out the rules of social situations. | | | | |
| 58. I am good at predicting what someone will do. | | | | |
| 59. I tend to get emotionally involved with a friend's problems. | | | | |
| 60. I can usually appreciate the other person's viewpoint, even if I don't agree with it. | | | | |

Appendix D

## INDIVIDUALISM AND COLLECTIVISM SCALE
(Triandis & Gelfland, 1998)

| ITEMS | Never | Almost Never | Usually Not | Rarely | Occasionally | Often | Usually | Almost Always | Always |
|---|---|---|---|---|---|---|---|---|---|
| 1. I'd rather depend on myself than others. | | | | | | | | | |
| 2. It is important that I do my job better than others. | | | | | | | | | |
| 3. If a coworker gets a prize, I would feel proud. | | | | | | | | | |
| 4. Parents and children must stay together as much as possible. | | | | | | | | | |
| 5. I rely on myself most of the time; I rarely rely on others. | | | | | | | | | |
| 6. Winning is everything. | | | | | | | | | |
| 7. The well-being of my coworkers is important to me. | | | | | | | | | |
| 8. It is my duty to take care of my family, even when 1 have to sacrifice what I want. | | | | | | | | | |
| 9. I often do "my own thing." | | | | | | | | | |
| 10. Competition is the law of nature. | | | | | | | | | |
| 11. To me, pleasure is spending time with others. | | | | | | | | | |
| 12. Family members should stick together, no matter what sacrifices are required. | | | | | | | | | |
| 13. My personal identity, independent of others, is very important to me. | | | | | | | | | |
| 14. When another person does better than I do, I get tense and aroused. | | | | | | | | | |
| 15. I feel good when I cooperate with others. | | | | | | | | | |
| 16. It is important to me that I respect the decisions made by my groups. | | | | | | | | | |