Presence of Uncertainty in Friendships: A study on Morocco and the United States

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Abstract

This study seeks to understand how culture influences people's level of uncertainty and information seeking strategies in interpersonal relationships. The general premise is cultures experience different levels of uncertainty and, therefore, the uncertainty reduction theory can be observed in different ways. Hypotheses were formed regarding how aspects of culture may change the level of uncertainty and information seeking present in Morocco and the United States. A study was conducted through the distribution of a survey asking questions about friendships between Moroccan students (N=25), and friendships between American students (N=46). It was found that American students have more certainty, and use the interactive information seeking strategy more, than Moroccan students. Furthermore, certainty within friendship leads to more direct and interactive information seeking strategies. Relationship length was positively associated with more certainty in friendships, as was relationship closeness. The authors conclude the study by discussing how these findings influence the future research of culture and the uncertainty reduction theory.

Introduction

Communication is how we understand, relate, grow, and have experiences with one another. It is what connects us, helps us form relationships, and allows us to co-exist. Communication is the core aspect of relational development and formation (Knapp, 1984). One proposed condition of relational development is to reduce uncertainty between individuals during initial interactions. Uncertainty Reduction Theory (URT; Berger & Calabrese, 1975), posits that individuals typically find uncertainty to be unpleasant, thus, people are motivated to reduce it through communication. It is through communication that we learn how different cultures perceive and value their interpersonal relationships, especially in terms of what prompts relational progression as opposed to dissolution within various contexts. The goal of this study is to determine the role of uncertainty and test the tenets of uncertainty reduction theory in two cultures, Morocco and the United States.

Original Tenants of Uncertainty Reduction Theory

Berger and Calabrese developed the URT in 1975 when they discovered a predictable pattern of information-seeking after initial interactions between individuals. Berger and Calabrese (1975) believed "when strangers meet, their primary concern is one of uncertainty reduction or increasing predictability about the behavior of both themselves and others in the interaction" (p. 100). Uncertainty "constitutes a lack of confidence about how an interpersonal encounter will proceed; it involves the inability to describe, explain, and predict behavior within interaction" (Knobloch & Solomon, 1999, p. 262).

Seven Assumptions

Berger and Calabrese formed seven major assumptions that provide the foundation to the Uncertainty Reduction Theory (Turner & West, 2007); 1) People experience uncertainty in

interpersonal settings. Individuals feel uncertain when relating or communicating to each other. 2) Uncertainty is an aversive state. This assumption identifies uncertainty as something that is stressful and unpleasant. 3) When strangers meet, their primary concern is to reduce their uncertainty or to increase predictability. 4) Interpersonal communication occurs through stages; 5) Interpersonal communication is the primary means of uncertainty reduction. 6) The quantity and nature of information that people share change through time. 7) It is possible to predict people's behavior in a law-like fashion (Turner & West, 2007).

Axioms

Berger and Calabrese (1975) expanded upon the seven assumptions and created seven axioms within the URT. These axioms are used to describe factors leading to feelings of uncertainty, and the overall impact of increased uncertainty and reducing uncertainty in initial interactions. The seven original axioms are as follows; 1) Given the high level of uncertainty present at the onset of the entry phase, as the amount of verbal communication between strangers increases, the level of uncertainty for each interactant in the relationship will decrease. As uncertainty is further reduced, the amount of verbal communication will increase. 2) As nonverbal affiliative expressiveness increases, uncertainty levels will decrease in an initial interaction situation. In addition, decreases in uncertainty level will cause increases in nonverbal affiliative expressiveness. 3) High levels of uncertainty cause increases in information seeking behavior. As uncertainty levels decline, information seeking behavior decreases. 4) High levels of uncertainty in a relationship cause decreases in the intimacy level of communication content. Low levels of uncertainty produce high levels of intimacy. 5) High levels of uncertainty produce high rates of reciprocity. Low levels of uncertainty produce low reciprocity rates. 6) Similarities between persons reduce uncertainty, while dissimilarities produce increases in uncertainty. 7)

Increases in uncertainty level produce decreases in liking; decreases in uncertainty level produce increases in liking (Berger and Calabrese, 1975).

With the introduction of the seven axioms, Berger and Calabrese formulated 21 theorems used to describe the results of the URT within the axiom categories. These theorems are explained in the Appendix.

Uncertainty Reduction Motivation

The major assumption within the URT is that uncertainty creates cognitive stress, which in turn motivates people to reduce it. Berger and Calabrese (1975) identified three situations in which individuals are motivated to reduce uncertainty; 1) Anticipation of future interaction, 2) Incentive value, and 3) Deviance. Anticipation of future interactions states that people will seek to reduce uncertainty with individuals they will see again. Incentive value states people desire information from those who have the power to influence their lives, and therefore will seek to reduce uncertainty. Lastly, deviance states people seek to reduce uncertainty about those who act outside of behavioral and societal norms.

Information Seeking Strategies (see Figure 1)

New relationships are somewhat unpredictable as people seek to learn more about how an individual is going to act, interact, and respond to everyday encounters. As such, individuals tend to seek-out information to reduce their level of uncertainty about another. The URT posits three types of information seeking strategies people tend to engage in when they are uncertain about an individual: passive, active, and interactive.

The passive strategy involves observing others and how they present themselves in certain situations. Individuals monitor their audience, unnoticed in their natural environment, in order to understand how the Other behaves and interacts in different social settings. Individuals

use this information to ensure a guarantee of appropriate behavior by the Other before they interact with the Other themselves. The active strategy includes reducing uncertainty without any form of direct personal contact and involves a third-party source. Typically, those who employ the active strategy ask others questions about the individual and intentionally set up a situation to observe an individual's behavior. The interactive strategy includes communicating with the other person directly and engaging with them in order to reduce uncertainty (Berger, 1979; Knobloch & Solomon, 1999). Communicative methods such as interrogation and self-disclosure are extremely popular within the interactive strategy (Sunnafrank, 1986).

A later study examining the effect of computer mediated communication on uncertainty, introduced a fourth information-seeking strategy known as the extraction strategy (Burgoon, Ramirez, Sunnafrank & Walther, 2002). The extractive strategy involves using online mediums to gather information. Face to Face research discovered that people wish to observe the Other in informal situations rather than in formal situations. By using the extractive strategy individuals can covertly collect data from sources, such as social media and text messages, to reduce their uncertainty about another.

Stages of Communication

In addition to the four information-seeking strategies, URT suggests three stages of communication through which uncertainty reduction occurs: entry, personal, and exit stages. The entry stage involves sharing demographic information such as your age, gender, and occupation. In the personal stage, interactants share their attitudes, beliefs, and values. It is important to note this phase is not as constrained by social norms relative to the entry stage. Lastly, the exit stage determines if interactions will end or continue on in the future (Berger, 1979; Knobloch &

Solomon, 1999). The exit stage is dependent upon the previous interactions with an individual, it can occur at any point in another stage of communication, entry or personal.

Types of Uncertainty (See Figure 1)

Within the four information-seeking strategies and three stages of uncertainty communication, two types of uncertainty derive: behavioral and cognitive. Behavioral uncertainty refers to questions individuals ask themselves regarding how they should behave within certain interactions. Following social rules tends to be the most popular forms of behavioral uncertainty (Griffin, 2009). This is similar to the passive strategy used in information-seeking as one can self-monitor how they should behave to reduce their own uncertainty. When individuals participate in self-monitoring, they assess and regulate their behavior to accommodate social situations. Self-monitoring reduces uncertainty as individuals are able to adjust their behavior and therefore feel more certain about themselves, the environment, and the Other. The second type of uncertainty is cognitive. Cognitive uncertainty prompts thoughts such as "who is this person?" during interpersonal interactions. These thoughts further a person's desire to interact and understand the individual in order to reduce uncertainty. This is similar to the interactive information seeking strategy which seeks to reduce uncertainty through ongoing communication and understanding of the individual (Griffin, 2009).

Sources of Uncertainty (see Figure 1)

Overall, the Uncertainty Reduction Theory proposes that the self, partner, and relationship provide three sources for uncertainty. Self-uncertainty mirrors a lack of knowledge about the self and occurs when people "are not able to describe, predict, or explain their own attitudes or behavior" (Berger & Bradac, 1982; Berger & Calabrese, 1975). People are full of self-doubt and ask themselves "why did I do or say that?" (Berger & Bradac, 1982, p. 9). Partner

uncertainty refers to a lack of knowledge about the partner, his/her behavior, attitudes, beliefs, and preferences (Berger, 1979; Berger & Gudykunst, 1991). Relational uncertainty is the "umbrella of uncertainty" in which there is a lack of knowledge about the relationship as a system, rather than the partner and self that make up the relationship. It is uncertainty about the nature of relationship individuals have with others (Cushman & Kovačić, 1995). Berger (1988) believes that "relationships can be viewed as systems of information exchange that must reduce uncertainty in order to survive" (p. 255). Knobloch and Satterlee (2012) define relational uncertainty as "the questions people have about participating in an interpersonal relationship" (p. 108). Duck and Meill (1986) state, "the development of friendships is rather an uncertain, nonlinear (fluctuating), speculative business rather than the automatic, linear, and straightforward process….For this reason subjects appear to give considerable thought to strategic control of relationships and strive to correct the feelings that they do not know where they are going" (p. 141). Four sources of relational uncertainty have been identified by Knobloch and Solomon (1999); 1) what norms apply to a given relationship, 2) evaluation of the relationship, 3) goals of the relationship, and 4) definition of the relationship. These four sources are used to assess individuals uncertainty pertaining to their interpersonal relationships within the self, partner, and relationship**.**

Related Theories And Expansions Of URT

Research on uncertainty reduction has progressed since 1975 when Berger and Calabrese first introduced the theory. Scholars have conducted research on the impact of URT in initial interactions, romantic relationships, and intercultural or cross-cultural situations.

A significant addition is applying the URT to ongoing interpersonal relationships, instead of only initial interactions between strangers. In a later research article Berger (1986) states,

"When people are unsure of their conversational partners' actions and intentions, the flow of interaction is disturbed, and interaction becomes effortful. For example, first dates, marriage proposals, and interactions with foreigners are difficult precisely because individuals involved in them are uncertain of what is expected of them and how others will respond to them" (p. 35). Berger identifies the presence of uncertainty in ongoing relationships.

The Uncertainty Reduction Theory has been applied to romantic relationships (Parks & Adelman, 1983), as well as friendship and acquaintances (Gudykunst, Nishida & Yang, 1985). In 1985, Gudykunst, Yang, and Nishida studied college students in three phases of relationship: acquaintances, friends, and dating; within three different cultures: United States, Korea, and Japan. Gudykunst and Nishida (1984), found that the URT information seeking strategies are applied differently across cultures, and their 1985 study supported the notion that culture impacts which information seeking strategy individuals use. Their study found that Americans had higher levels of self-disclosure and use of interactive strategies, such as interrogation, than Japanese students. These findings suggested the need for expansion among the theorems and axioms, which were created based only off of initial interactions in the United States. The Uncertainty Reduction Theory, its axioms and theorems, have been criticized for failing to consider the different tolerance levels of uncertainty across cultures. Geert Hofstede (2016) identifies differences in Uncertainty Avoidance across countries which will be discussed in the next section of this review. The original URT failed to recognize these differences of culture and this study furthers the research in regards to the influence of culture on uncertainty.

Another significant addition is the expansions of the theories and axioms. Berger and Gudykunst expanded the URT by introducing an additional axiom in 1991. Parks and Aldeman (1983) conducted a study which explored active information seeking and the use of a third party

in gathering information. They found that those who communicated with their partners "social network", or third parties, had less uncertainty;

Axiom 8: Shared communication networks reduce uncertainty, whereas lack of shared networks increases uncertainty.

Axiom 9 pertains to research on the communication that occurs during initial interactions. Scholars, Neuliep and Grohskopf (2000), found that, in a sample of college students, lower levels of uncertainty were related to higher levels of communication satisfaction (Redmond, 2015);

Axiom 9: During initial interaction, as uncertainty decreases, communication satisfaction increases.

Support for the theories and axioms varied across studies, which has made the theory inconsistent. Throughout research, tests were conducted on 16 of the 28 original axioms and theories introduced by Berger and Calabrese (1975). As of 1986, only about half of the 100 individual tests were theoretically supportive (Sunnafrank, 1986). The axioms oversimplified the increasingly complex theory of uncertainty reduction. Several theories have been born from the Uncertainty Reduction Theory and expanded upon its concepts.

The predicted outcome value theory (POV) is a competing theory with the Uncertainty Reduction Theory. The POV suggests individuals seek information in initial interactions not to reduce uncertainty as the URT states, but to better predict the value of the future outcome of the relationship (Sunnafrank, 1986). The POV believes reducing uncertainty is part of our quest to identify and predict the outcome value of a relationship, but it is not the primary focus.

The Anxiety-Uncertainty Management theory added anxiety as a factor affecting people's thoughts and behaviors (Gudykunst & Hammer, 1988). A threshold of anxiety exists in which there is either too much or too little anxiety, or uncertainty. Anxiety is either too high, where we

become overwhelmed and cannot communicate, or too low, in which we become too bored and choose not to communicate (Gudykunst, 1993) .

Brasher studied uncertainty in the context of health and medical decisions (2011) and introduced the Uncertainty Management Theory (UMT). Brasher and his colleagues "propose that people appraise uncertainty for its potential harm or benefit, which is also associated with emotional responses...these appraisals and emotional responses motivate behavioral and psychological actions intended to manage uncertainty" (Redmond, 2015, pg. 30). The UMT brought forth the notion that uncertainty is not inherently negative or positive, but rather we appraise meaning to it.

Afifi and Weiner's (2004) Theory of Motivated Information Management identified three phases in uncertainty in initial interaction; interpretation, evaluation, and decision making. In the interpretation phase, uncertainty arises. In the evaluation phase, individuals weigh the outcome of what might happen if they search for more information and if they find themselves capable of doing so. Lastly, in the decision-making stage, individuals determine if they will avoid relevant information, seek relevant information, or reappraise relevant information. When an individual reappraises, they "reconsider the uncertainty and mentally reframe the issue as unimportant" (Redmond, pg. 31, 2015).

Cultural Influences On Uncertainty (see Figure 2)

Uncertainty Avoidance

As this study aims to compare the presence of uncertainty in same-sex friendships in both Morocco and the US, it is important to examine the context of culture and its effect on uncertainty. Geert Hofstede first used five cultural values to organize the cultures of the world, one of which included Uncertainty Avoidance (UA), or uncertainty aversion. Hofstede states,

''Uncertainty-avoiding cultures shun ambiguous situations. People in such cultures look for structure in their organizations, institutions, and relationships, which makes events clearly interpretable and predictable'' (2001). Eastern cultures, such as Japan, are more uncertainty avoidant than Western cultures, such as Canada (Hofstede, 1980). Hofstede's most recent, six-dimension study found Morocco has a relatively high UA, meaning the country maintains strict codes of beliefs and behaviors in order to avoid unknown situations. (Hofstede, 2016). Morocco's overall UA score of 68 suggest they have a high preference to avoid uncertainty. High uncertainty avoidance indicates a country's strong desire to reduce uncertainty, or their high aversion to uncertainty, typically through rules and regulations. The United States has an overall UA score of 46, which is below average. Low uncertainty avoidance indicates a country's willingness to try something new and be more tolerant to freedom of expression (Hofstede, 2018). Past research indicates Morocco is high in uncertainty avoidance, or high in uncertainty aversion. However, there are other aspects of culture that influence uncertainty avoidance, or uncertainty aversion, in interpersonal relationships. Contradictory conclusions can be drawn regarding how Moroccan culture influences uncertainty avoidance and the uncertainty reduction theory. We gathered data to examine these claims and form hypotheses regarding the influence of culture on level of uncertainty, information seeking strategies, and relationship length and perceived closeness.

Hypotheses (see Figure 2)

Levels of Uncertainty

Tight and loose cultures.

The tightness and looseness of cultures affects the level of uncertainty avoidance, or uncertainty aversion. Loose cultures encourage deviation from norms, and tight cultures punish

deviation from norms. Individuals in countries with tight cultures prefer "predictability, certainty, and security", whereas those in loose cultures prefer creativity and diversity (Triandis, 1989, p.50). Typically, when a culture is homogeneous, like Morocco, there is a level of interdependence and tightness because everyone can be supervised rather closely (Triandis, 2002). When a culture has the influence of other cultures and interdependence is not high, such as in the United States, the culture is more likely to be loose (Triandis, 2002).

Tightness and looseness is distinct from individualism, collectivism, and uncertainty avoidance. Tight cultures could be high or low on uncertainty avoidance. Tight cultures punish deviation from norms, and we know from the URT one motivating factor of uncertainty reduction is deviance. This could mean either 1)tight cultures are high in uncertainty avoidance because they want to maintain low deviance, or 2) they are low in uncertainty because the stress of uncertainty is not present with the already established norms. There was no relationship between UA and the tightness-looseness of cultures in a recent study conducted by Gelfand (2011). Gelfand believed the lack of relationship could be due to the fact that " because tight societies have many clear norms, stress deriving from uncertainty may be dramatically reduced among its citizens (2011, S6)".

Religiosity, fatalism, and short-term orientation.
Other cultural influences on uncertainty avoidance include religiosity and fatalism. Although Hofstede's cultural values and dimensions do not examine religiosity, a recent study found that Morocco is high in religiosity (Hamri, Zerouali ouariti, & Lechheb, 2016), which refers to the level of participation in which an individual or group of people practice a religion (Shaffer, 1996). As approximately 99.9% of the Moroccan population actively practices Islam, there is an evident religious foundation within the country (CIA World Fact Book). Morocco's

high religious affiliation supports Hofstede's definition of high uncertainty avoidance existing in cultures that have structure and contain social rules, much like Islam creates for Morocco. This is supported further by the notion that Moroccans tend to prefer professional communication mediums that are low in richness and produce low uncertainty, such as written messages that can be read over again (Gerritsen, 2009).

In contrast to Hofstede's (2016) study on uncertainty avoidance, a study conducted by Nouiga and Eddakir (2003), found that Morocco has low uncertainty avoidance due to the Islamic belief of fatalism. Fatalism defines all events as preordained, and holds the belief that "one cannot escape their destiny" (Hargraves, 2010). Maktoub, which means *written* in Arabic, reminds Moroccans that "everything is already decreed by Allah" (Hargraves, 2010). El Maache (2003) found that fatalism relieves the anxiety of unforeseen events, hence the usage of the phrase *Inshallah*, or god-willing in Moroccan culture. This is not the case for cultures with high-uncertainty avoidance (Balambo, 2014).

Due to the strong belief in fatalism, Moroccans also may not consider uncertainty of the future something to worry about, and therefore may not utilize the URT in their interpersonal relationship development as if it is out of their control. The present-oriented mindset is seen within the context of punctuality. As with other Arab cultures, Moroccans are not aware of punctuality and believe everything will happen or come in "due time" (Hargraves, 2010). They do not worry about the uncertainty of where someone is, or why they may be running late. Moroccans live in the present and focus on what is happening right in front of them. These aspects of short-term orientation provide evidence consistent with the claim that Moroccans tolerate more uncertainty, or are less uncertainty averse, when interacting with others.

Hypothesis I: Moroccans will experience lower levels of uncertainty, or experience uncertainty as less aversive, in their friendships.

Information Seeking Strategies

Individualism and collectivism.

As stated previously, Gudykunst and Nishidia (1986) found that the "nature of uncertainty with which individuals are concerned vary across cultures" (Cushman & Kovačić, 1995). Culture differs greatly on the basis of individualism and collectivism (Triandis, 1988). Hofstede studied five dimensions of culture, one of which being the present level of individualism and collectivism. Hofstede defines individualist cultures as "people who are supposed to look after themselves and their immediate family only" (Hofstede, 2018). He continues on in a later study by describing individualist cultures as ones in which "the interests of individuals prevail over the interests of the group" (1991, p.50). Collectivist cultures are defined as "people belonging to in-groups or collectives which are supposed to look after them in exchange for loyalty" (Hofstede & Bond, 1984, p.419). In other words, individualist cultures have specific friendships and collectivist cultures have friendships that are determined beforehand stable relationships formed early in life (Chua, Gray & Gudykunst, 1987).

In collectivist cultures, group goals come before individual goals and one gets to know the Other through interacting with the group. Individuals in an individualist culture put their own goals before the group, and develop relationships by gathering information about someone as an individual. Those in collectivist cultures use more indirect communication, and those in individualistic cultures tend to use more direct communication to reduce uncertainty (Gudykunst & Nishida, 1986). Direct communication involves gathering information about someone's beliefs, attitudes, values, and behaviors. The information used to reduce uncertainty is

individual-based, whereas in collectivistic cultures, where the information seeking is more

indirect, the type of information used to reduce uncertainty is group-based. While both types of

uncertainty exist in all cultures, Gudykunst and Nishida believe one dominates depending on the

culture relationship.

Eastern and western cultures.

Along the lines of individualism and collectivism, Eastern cultures should be more

group-oriented and Western cultures should be more self-oriented (Hodson, Shuper, Sorrentino,

Otsubo & Walker, 2004). Societies with low group cohesion and a primary focus on personal

identity, or self-orientation, characterize individualism. Individualistic cultures are also low-

context as they rely on verbal communication. Collectivist cultures are high-context because they

value collaboration in communication, and stable interpersonal relationships (Gudykunst &

Nishida's, 1986). Geert Hofstede identified Morocco as being less individualistic, with a

measure of 46 out of 100, than the United states with a measure of 91 (Hofstede, 2018). With

this information, collectivist cultures, such as Morocco, should engage in more passive

information seeking strategies, whereas individualistic cultures, the United States, should engage

in more direct, interactive information seeking strategies when reducing uncertainty.

Religiosity, short-term orientation, and positive image.

The passive strategy is used by presenting oneself in a strategic way and collecting

information about others in unnoticeable ways, such as googling someone to learn more about

them. Due to the structure presented through their faith, Moroccans are able to reduce

uncertainty by following the rules of Islam and their society, such as the 5 pillars of Islam and

dressing appropriately by covering one's head and body. This viewpoint is seen by Hofstede's

national study of cultural values, in which he suggests Morocco may have high uncertainty-

avoidance (Hofstede, 2016). According to Geert Hofstede (2010), cultures with short term orientation are always focused on the past, in which cultures respect past traditions and values serving others as an important goal in society (Hamri, Zerouali ouariti, & Lechheb, 2016). This truth of Moroccan culture can validate the use of uncertainty reduction with the passive strategy as individuals present themselves in positive ways to reduce not only their uncertainty, but also to serve to reduce the uncertainty of the other.

Another cultural value of Moroccans which suggests the use of the passive URT strategy in interpersonal relationships is the value of looking good, or positive image (Hargraves, 2010). Moroccans are concerned about their appearance and how others perceive them; they desire to maintain a good image, "to have a positive image one has to respect social rules and to avoid any behavior that may shock other people" also known as face work (Saphiere, Roignan & Zahid, 2015). *Hchouma*, or social shame, is looked down upon greatly in Morocco and brings forth a negative image to one's self and family (Saphiere, Roignan & Zahid, 2015). Moroccans follow social rules to maintain a positive and respectable image, which suggests they do consider uncertainty when interacting with others and forming relationships, and are very strategic by monitoring themselves within interactions.

As stated previously, a study conducted by Gudykunst and Nishidia (1985) found that Americans had higher levels of self-disclosure and use of interactive strategies, such as interrogation, than Japanese students. Morocco and Japan are both more collectivist cultures, scoring 46 on Geert Hofstede's cultural dimension of individualism, and high uncertainty avoidance countries, whereas America is more individualistic (score of 91) and has low uncertainty avoidance. With this information, we can predict Americans will use more direct, or interactive, information seeking strategies than Moroccans.

Hypothesis II: Moroccans tend to use more passive information seeking strategies, and Americans use more interactive information seeking strategies when engaging in uncertainty reduction.

Relationship Length and Closeness

A final hypothesis can be made regarding relationship length and relational uncertainty levels. Planalp and Honeycutt (1985) discovered three variables that represented relational uncertainty levels: trust, jealousy, and maintenance behaviors. Trust is defined as an act that voluntarily exposes oneself to positive and negative externalities via the actions of others (Rempel, Holmes, & Zanna, 1985). Trust within a relationship is positively correlated to openness, and Ficara and Mongeau (2000) found relational uncertainty to be negatively associated with three maintenance strategies: openness, assurances, and positivity. Roberts-Griffin (2011) examined the changes in what was desirable in a friend over the course of a person's lifespan. Trust was the most desired quality in a friend between the ages 15-21 and 31-45. For ages 46-60 years, honesty was the most reported desired quality in a close friend, and those 60 and older desired communication most.

A study on mentoring relationships found that trust increases with relationship length (Wang, Tomlinson, & Noe, 2010). Another study on the role of uncertainty in cross-sex friendships found that those relationships which were most intimate had lower levels of uncertainty (Afifi & Burgoon, 1998). Trust tends to increase with relational intimacy. Trust is an important aspect of relational development and can lead to openness within a relationship. Trust also has a negative association with relational uncertainty, meaning the more trust present, the less uncertain individuals will be. This information applies greatly to the study, as it is dealing with college-aged participants (18-22). Since trust increases with relationship length, it can be

predicted that the longer the relationship of participants with their same-sex friend, and the more

close they perceive their friend and them to be, the lower the level of relational uncertainty

present.

Hypothesis III: As relationship length and closeness increase, uncertainty decreases.

Research Questions

Current studies on the culture of Morocco contradict each other as they analyze uncertainty

avoidance and uncertainty reduction. Although the culture has been researched in regard to UA,

research on interpersonal relationships and uncertainty in Morocco is lacking within the field of

social sciences. There is currently no study analyzing how the Uncertainty Reduction Theory

works in Morocco, especially within the interpersonal relationship of friendship. This produces

an important question: Does the Uncertainty Reduction Theory apply similarly in Morocco as in

the United States? The following research questions are used to guide our hypotheses as we

collect and analyze our data;

1. To what extent are Moroccan and American students experiencing relational, self, and

   partner uncertainty within same-sex friendship? Do Moroccans have stronger aversion to

   uncertainty than Americans?

2. Do Moroccans use more passive strategies, and Americans use more interactive strategies

   when trying to reduce uncertainty?

3. How does relationship length and closeness associate the level of uncertainty in

   Moroccan friendships and American friendships? Does culture have an effect on

   relationship length and closeness?

Method

The goal of this study was to examine the three sources (self, partner, relationship) of the Uncertainty Reduction Theory in Morocco and the United States within same-sex friendships; analyzing how culture and degree of relational length and closeness affects overall uncertainty and uncertainty management strategies used.

This study used Knobloch and Solomon's scale measuring the sources and content of relational uncertainty. Knobloch and Solomon sought to develop a measure of relational uncertainty that captures the self, partner, and relational source of uncertainty and the content issues surrounding these sources. Knobloch and Solomon (1999) created three 21-likert scales to assess these measurements and confirmed the internal validity of the scale. This scale was originally developed based off of romantic relationships and can further contribute to understanding uncertainty within developing and close, intimate relationships (pg. 274). Knobloch and Solomon (1999) stressed further research should focus on how the sources of relational uncertainty impact the communication and strategies used to manage uncertainty in close relationships, and one aspect of close relationships is friendship (pg. 274).

Applying the Self, Partner, and Relationship scale's toward same-sex friendships has provided an advancement of research on uncertainty within developing interpersonal relationships. Past research has not examined in depth the role of uncertainty in same-sex friendships nor has it looked at uncertainty within the culture of Morocco in regards to friendship. This study utilized quantitative analysis to provide a breadth of information on both Moroccan and American students.

Scale Development

Using the Self, Partner, and Relational Uncertainty scales created by Knobloch and Solomon, we study gathered information on participant's uncertainty within a self-identified close, same-sex friendship. In addition to the Self, Partner, and Relationship scale, an Information Seeking Strategy scale was created based off of uncertainty scenarios presented in a recent literature review (Redmond, 2015).

Measures

The first portion of the survey measured the sample demographics and relationship intimacy characteristics. The second portion of the survey assessed relational uncertainty measures. The third portion of the survey analyzed respondents use of uncertainty reduction strategies. In total, the survey took approximately 25 minutes to complete.

Participants and Procedures

The survey was created using the University of Minnesota's Qualtrics application and was distributed to college students attending the University of Ibn Zohr and University of Minnesota Duluth via email and Facebook messenger. The United States sample (N = 46) was drawn from students attending the University of Minnesota Duluth. The sample included 8 males and 38 females. The Morocco sample (N = 25) was drawn from students attending the University of Ibn Zohr (n = 18), another university (n = 3), or not attending a university (n = 4). The sample included 12 males and 13 females. In total, there were 98 responses, with 71 responses over 50% complete and suitable for analyzing. Of the 71 participants, there were 46 Americans, 25 Moroccans, 20 males, and 51 females.

Overall, the mean age of participants was 20.11 years, and the mode was 18 years. Within the Morocco sample, the mean was 21.92 years and the mode was 22 years (*SD* = 2.104).

Within the American sample, the mean was 19.17 years and the mode was 18 years ($SD = 1.322$.

Those within the Moroccan sample who attended university had been in school an average of

3.33 years ($SD = 1.465$), and 1.93 years for the Americans ($SD = 1.124$).

Consistent the study's focus on friendships, participants were prompted to answer the

questionnaire with a single, close, same-sex friend in mind:

For the following questions, think of a close friend of the same-sex. This person should

not be a romantic partner or family member.

Relational Characteristics

Relationship length was measured using a scale that ranged from less than one month to

more than 6 years. The *relational closeness* was assessed using the Inclusion of the Other in the

Self (IOS) Scale, a single-item, pictorial measure of closeness (Aron, Aron, & Smollan, 1992).

This scale was used to ensure we could measure how close participants were to their friend, since

our prompt did not define the term "close".

The average relationship length for Americans was 6.67 and the mode was 8 ($SD =$

1.739). The average relationship length for Moroccans was 5.28 and the mode was bimodal with

4 and 7 ($SD = 2.189$). This means most Americans (n = 46) responded to the survey thinking of a

friend they had for 6 years or more, and most Moroccans (n = 25) responded to the survey

thinking of a friend they had for 1-2 years or 4-5 years. Overall, Americans reported having

longer relationships with their self-identified close-same-sex friend than Moroccans. The average

perceived state of relationship closeness for Moroccans was 4.08 ($SD = 1.605$), whereas for

Americans it was 4.286 ($SD = 1.312$). The higher the number on scale of 1 to 7, the closer you

feel with your friend. After running an independent groups ANOVA, it was calculated that

$F(1,65) = .326$, $p = .570$ indicating there is no significant difference in closeness between

Moroccans and American friendships (see Figure 3 and Table 1).

Uncertainty Characteristics

Self, Partner, Relational Uncertainty. Knobloch and Solomon's (1999) Three 21-item

Iikert-type scales were written to measure the respondent's uncertainty about his or her own

relational involvement with a close friend, the friend's relational involvement, and the

relationship itself (see Tables 2, 3, and 4). Detailed instructions for this section of the survey

were provided to help the respondents distinguish between degree of relationship involvement

and uncertainty about relational involvement:

> *We want you to rate your certainty in each of the following statements. Each question is*
>
> *always about your certainty, or confidence in the statement. For example, if we ask "how*
>
> *certain are you about your feelings for your friend?", we are not asking how you feel*
>
> *about your friend, rather we are asking how confident you are regarding your feelings*
>
> *for your friend.*

The possible responses to the items were as follows: *1 = completely or almost completely*

uncertain, 2 = mostly uncertain, 3 = slightly more uncertain than certain, 4 = slightly more

certain than uncertain, 5 = mostly certain, and 6 = completely or almost completely certain. The

higher valued responses indicate greater degrees of relational uncertainty.

Information Seeking Strategies. The third portion of the survey assessed the strategies

participants use in order to reduce uncertainty; passive, active, or interactive (see Table 5). With

the same friend in mind from the second section of the survey, respondents were asked to rate

given responses to hypothetical scenarios on a 5-item Likert scale. The possible responses were

as follows; *1 = Extremely unlikely, 2 = unlikely, 3 = Neutral, 4 = likely, and 5 = Extremely likely*.

Results

The results of this study will be reported in three parts. First, examining the role of uncertainty in same-sex friendships. Second, determining which information-seeking strategies are most common from the final portion of the survey. Third, analyzing the possible correlations between the scales, demographic information, including culture, and relationship length and closeness. All results were analyzed using the SPSS database and are considered significant at *p* < .05.

We calculated Cronbach's alpha as the reliability statistic for each of the uncertainty scales; self (SU), partner (PU), and relationship (RU). The partner friendship uncertainty scale measured *Cronbach's a* = .95. We re-ran the test with item seven, "how certain are you about how much your friend is romantically interested in you?", removed from the data set (see Table 2, 3, and 4). Without this question, *Cronbach's a* increased to .97. Due to the increase in reliability, we eliminated item seven from our analysis. Overall, the reliability of the uncertainty scales was high (SU *Cronbach's a* = .97, PU *Cronbach's a* = .97, RU *Cronbach's a* = .94).

We calculated Cronbach's alpha as the reliability statistic for each information seeking strategy response; active, passive, interactive, and extractive. The active information seeking strategy's reliability measured *Cronbach's a* = .79. We re-ran the test with item five, "attempt to catch them in a lie by creating a situation in which you observe their response", removed from the data set (see Table 5). Without the item, the reliability increased to *Cronbach's a* = .81. This item was therefore eliminated from the data analysis. The reliability varied among the information seeking strategies. In terms of *Cronbach's a*; active = .81, passive = .43, interactive

= .83, and extractive = .54. The lower reliability in the information seeking strategy scale could be a problem in our research findings.

Findings

Presence of Uncertainty in Self, Partner, and Relationship

The data indicates Moroccans experience more uncertainty in their friendships, than Americans, with 1 = *completely or almost completely uncertain*, and 6= *completely or almost completely certain* (see Table 6). When testing for whether Moroccans and Americans differ in levels of uncertainty pertaining to the self, results of an independent-samples *t*-test revealed that Americans ($M = 5.23$, $SD = .99$) are significantly more likely to experience more certainty in the self than Moroccans ($M = 4.64$, $SD = 1.08$), $t(69) = 2.35$, $p < .05$. Americans ($M = 5.10$, $SD = .84$) are also significantly more likely to experience more certainty in the relationship than Moroccans ($M = 4.59$, $SD = .81$), $t(69) = 2.52$, $p < .05$. The data is not significant in terms of partner uncertainty and culture. When testing for partner uncertainty, Americans ($M = 5.05$, $SD = .92$) are more likely to experience more certainty than Moroccans ($M = 4.57$, $SD = 1.12$), $t(69) = 1.94$, $p = .057$. Lastly, Americans ($M = 5.13$, $SD = .83$) are statistically more likely to experience more certainty in their friendship overall than Moroccans ($M = 4.60$, $SD = .793$), $t(69) = 2.62$, $p < .05$. The data suggests Americans experience more certainty than Moroccans in their friendships overall, as well as in the self, partner and relationship (see Table 6). We can conclude the data disproves our first hypothesis: Moroccans will experience lower levels of uncertainty in their friendships than Americans.

Information Seeking Strategies

The data indicates Americans attempt to reduce uncertainty more than Moroccans with information seeking. Americans held a higher mean in the use of each of the information

strategies, with *1= Extremely unlikely and 5=Extremely likely*. There was an effect for culture on information seeking strategies (see Figure 7). When testing for the overall use of information seeking strategies, Americans (*M* = 3.43, *SD* = .40) are significantly more likely to use information seeking strategies in their friendships to reduce uncertainty than Moroccans (*M* = 3.12, *SD* = .68), *t*(63) = 2.28, *p* < .05. When testing for whether Moroccans and Americans differ in their uncertainty reduction in terms of information seeking strategies, Americans (*M* = 3.17, *SD* = .64) are significantly more likely to engage in the active information seeking strategies than Moroccans (*M* = 2.69, *SD* = .87), *t*(63) = 2.50, *p* < .05. Additionally, Americans (*M* = 4.12, *SD* = 41) are significantly more likely to use interactive information seeking strategies than Moroccans (*M* = 3.66, *SD* = .80), *t*(63) = 3.00, *p* < . 01, in their attempt to reduce uncertainty. In terms of the passive information seeking strategy, the data was not statistically significant. Americans (*M* = 3.53, *SD* = .40) were more likely to use a passive information seeking strategy than Moroccans (*M* = 3.29, *SD* = .60), *t*(63) = 1.97, *p* = .053.

This means Americans engage in uncertainty reduction through interactive and active information seeking strategies. This information supports part of our second hypothesis, that Americans use more interactive information seeking strategies when attempting to reduce their uncertainty. Based off the present data, we can conclude Americans also tend to use an active information seeking strategy when engaging in uncertainty reduction.

Uncertainty and Information Seeking Strategies Across Culture

We tested for the relationships between uncertainty levels and information seeking across culture by running a *bivariate correlation*. The data indicates certainty leads to more interactive information seeking strategies (see Table 8). There was a significantly positive correlation between self-uncertainty and the interactive strategy, *r* = .28* , *p* < .05. There was also a

significantly positive correlation between relationship uncertainty and the interactive strategy, r = .36**, p < .001. The correlation between partner uncertainty and the interactive strategy was r = .20, p = .11. The data suggests that as certainty increases, or uncertainty decreases, so does the use of the interactive seeking strategies.

When testing for the correlation between self and partner uncertainty, and the passive and extractive information seeking strategies, there is a negative relationship. The correlation between self-uncertainty and the extractive strategy is r = -.17, p = .18. The correlation between self-uncertainty and passive strategy is r = -.13, p = .30. As self and partner uncertainty increase, the use of passive and extractive strategies decreases. This is similar to the data collected on partner uncertainty and the passive and extractive strategies. The correlation between partner uncertainty and the extractive strategy is r = -.20, p = .11, and the correlation between partner uncertainty and the passive strategy is r = -.14, p = .25. Passive and extractive strategies tend to be used with higher levels of uncertainty. Interactive information seeking strategies are used with the presence of lower levels of uncertainty.

Relationship Length, Closeness, Uncertainty, and Information Seeking

First, we analyzed the relationship between length, closeness of friendship, and uncertainty levels. Each correlation resulted in positive relationships. The longer your relationship, or how many years you've been friends, the higher your levels of certainty in the self, partner, and relationship (see Table 9). Significant findings included self-uncertainty and relationship length, r = .26*, p < .01. The longer their relationship length, the lower level of self-uncertainty respondents experienced. Perceived relationship closeness had a stronger relationship between the level of uncertainty in the self (r = .38** , p < .01), partner (r = .34**, p < .01), and relationship (r = .35**, p < .01). Lastly, relationship closeness had a significant relationship with

overall uncertainty ($r = .41^{**}$, $p = .00$). The closer respondents felt with their friend, the lower levels of uncertainty they reported. This data supports our third hypothesis that, as relationship length and closeness increase, uncertainty will decrease.

In addition, we tested the effect of relationship closeness and length on information seeking strategies. We found there was a significant relationship between closeness and the interactive strategy (see Table 10). With a correlation of $r = .39^{**}$, $p < .01$, as relationship closeness increases, so does the use of the interactive information seeking strategies.

Culture, Relationship Length, and Uncertainty

After testing our hypotheses, we wanted to test the effect of culture on relationship length and uncertainty levels. Results of an independent t-test found Americans ($M = 6.67$, $SD = 1.74$) are significantly more likely to have longer relationships than Moroccans ($M = 5.28$, $SD = 2.19$), $t(69) = -2.94$, $p < .01$ (see Table 11). American respondents reported having longer relationships, or friendships, than Moroccan respondents. In terms of perceived closeness, there results were not statistically significant, and no further testing was done on this variable (see Figure 12).

Previously in our study, we found there is a significant relationship between culture and uncertainty ($t(69) = 2.62$, $p < .05$), especially between culture and relationship length ($t(69) = 2.52$, $p < .05$). Next, we ran a partial correlation to test relationship between culture and uncertainty, where Morocco= 0 and US =1, with relationship length as the control variable. We found there to be an effect for culture on relationship length and relationship uncertainty. The correlation for relationship uncertainty and relationship length, $r = .26^*$, was significant at $p < .05$, and the correlations for partner and self-uncertainty were not significant when controlling for relationship length (see Figure 4 & Table 13).

Discussion

The results of the present research suggest there is an effect for culture on various aspects of the Uncertainty Reduction Theory, and it differs between Morocco and the United States. The original theory of Berger and Calabrese (1975) has been applied to different contexts, but never within both the friendships of Americans and the friendship of Moroccans.

The two competing logics of our study were the effects of uncertainty avoidance and the effects of culture on uncertainty. The finding that Moroccans experience more uncertainty in their friendships was not expected. We expected Moroccans to experience less uncertainty in their friendships because they are high in uncertainty avoidance, and therefore would have more aversion to uncertainty in their friendships (Hofstede, 2016). However, the cultural aspects of fatalism and short-term orientation held stronger effects on uncertainty level than UA, as Americans experienced more certainty in their friendships ($M = 5.13$, $SD = .83$), than Moroccans ($M = 4.60$, $SD = .793$), $t(69) = 2.62$, $p < .05$. Our finding that Moroccans are less direct in their pursuit of reducing uncertainty also supports our first finding that they have more uncertainty. The less direct you are in pursuing your uncertainty, the more uncertain you will continue to be. The question that remains, and should later be tested, is whether Moroccans are comfortable with their uncertainty. The data suggests they may be, because they do not pursue, or attempt to reduce, their uncertainty as directly as Americans. To come to this conclusion, further research needs to be conducted.

Morocco is a high uncertainty avoidance culture, meaning they desire to reduce uncertainty and become more certain, whereas America is a low uncertainty avoidance culture. The finding that Americans ($M = 4.12$, $SD = 41$) attempt to reduce uncertainty more directly, through interactive and active information seeking strategies, than Moroccans ($M = 3.66$, $SD = .80$), $t(63) = 3.00$, $p < .01$) held true based on past and present research. This finding suggests

the cultural aspects of individualism (Gudykunst and Nishida, 1986), short-term orientation (Hamri, Zerouali ouariti, & Lechheb, 2016), and positive image (Saphiere, Roignan & Zahid, 2015) have a strong influence on the way Moroccans reduce their uncertainty.

The finding that the interactive seeking strategy has a positive relationship with self ($r = .28*$, $p < .05$) and relationship ($r = .36**$, $p < .001$) uncertainty was a significant discovery. As you feel more certain, you feel more comfortable with your friend. This finding is supported with our finding that relational closeness is positively correlated with the interactive seeking strategy ($r = .39**$, $p < .01$). The closer respondents found their relationship to be, the more certain they felt, and they more direct they were in their information seeking during times of uncertainty.

The finding that relationship length (overall uncertainty; $r = .20$, $p = .09$) and closeness (overall uncertainty; $r = .41**$, $p = .00$) has a positive relationship with uncertainty levels is consistent with previous research. In a study on relational maintenance, Rene and colleagues found that noncyclical, or partners who had maintained their relationship, reported less uncertainty than did those who were on-off partners (2010). One expansion to be made on this finding is why Moroccans reported friendships that were shorter in length. This could be due to a sampling problem, but it still begs the question, what is the effect for culture on relationship length?

Our final finding that culture has an effect on relationship length and relational uncertainty ($r = .26*$, $p < .05$), tells us something about how impactful the context of culture is on our lives. We are influenced greatly by the culture we are a part of. This finding supports the premise of our study for understanding if and how the uncertainty reduction theory is impacted by culture.

Limitations

As with any research study, there are limitations to the present data used to come to these conclusions regarding the URT and culture. The number of participants from Morocco was lower than the number of participants from the United States. While there was enough responses to conduct a statistically significant study, a larger Morocco population would have contributed to the stability of the estimates. As a student, gathering a larger population of Moroccans was difficult due to the cultural differences between the United States and Morocco. Through the execution of this study, we learned Moroccans are not prone to respond quickly to emails or messages. Face-to-face interaction is more effective and is best for gathering evidence.

In addition, a qualitative section of this study should have been included. By interviewing participants on their friendships and asking direct questions about uncertainty, such as "how do you define uncertainty, how do you feel about uncertainty, when do you feel most uncertain, etc.", our scales and surveys would have improved. Assessing the audience pre-survey distribution with an interview would have been useful to ensure we were asking the necessary questions and maintaining strong reliability.

While we analyzed our data, we realized there were a few discrepancies in our conceptual models. At first, we wanted to analyze how culture influences uncertainty reduction, but we failed to ask questions approaching uncertainty as a concept. Our study would have been stronger conceptually if we asked a question regarding ones drive to reduce uncertainty, such as "how does uncertainty make you feel? how much uncertainty do you feel in your relationships overall?, etc.". Also, providing an avenue to re-test the influences of culture (i.e. short-term orientation, fatalism, individualism, tightness, etc.) on uncertainty avoidance would have added more support to the conceptual model for this study.

Lastly, a major limitation to our study was the unreliability of the information seeking strategy scale. This scale was developed independently of other research and therefore has not been used in past studies. There were still significant findings in terms of the relationships between culture, uncertainty levels, and information seeking strategies, but the reliability of the scale makes it possible we missed other important findings. Conducting a pre-survey with a sample population would have revealed this limitation and allowed for more thorough research and scale development to be done before testing our response population.

Directions for future research

Further research should be conducted on the effects of culture on uncertainty reduction theory. The suggestions for improvements stated in our limitations and findings are a solid starting point for further discovery. Exploring the use of information seeking strategies throughout different stages of relationships; initial interactions, acquaintances, friendships, romantic relationships, etc. is an area of research interpersonal communication needs to expand on. Research should also be conducted to determine which situations or scenarios increase an individual's likelihood of using different information seeking strategies. Assessing even further the impact of culture on interpersonal communication theories will help us better understand ourselves and those around us.

<div align="center">**Conclusion**</div>

We began this study by stating that the field of interpersonal communication would benefit from a better understanding of how aspects of culture, specifically within Morocco and the United States, effect the use of the uncertainty reduction theory and information seeking strategies. Throughout our study, we advanced hypotheses about the level of uncertainty present in friendships (Hypothesis 1) and the type (Hypothesis 2) of information seeking strategies used

based on culture, as well as the role relationship length plays in uncertainty (Hypothesis 3). Our study found that culture strongly influences if and how uncertainty operates in Morocco and the United States. We hope our findings bring forth continued interest in exploring and expanding the effects of culture on how we communicate, especially in regard to friendships across cultures.

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Appendix

Original Uncertainty Reduction Theory Theorems (Berger & Calabrese, 1975)
Theorem 1: Amount of verbal communication and nonverbal affiliative expressiveness are positively related.
Theorem 2: Amount of communication and intimacy level of communication are positively related.
Theorem 3: Amount of communication and information seeking behavior are inversely related.
Theorem 4: Amount of communication and reciprocity rate are inversely related.
Theorem 5: Amount of communication and liking are positively related.
Theorem 6: Amount of communication and similarity are positively related.
Theorem 7: Nonverbal affiliative expressiveness and intimacy level of communication are positively related.
Theorem 8: Nonverbal affiliative expressiveness and information seeking inversely related.
Theorem 9: Nonverbal affiliative expressiveness and reciprocity rate are inversely related.
Theorem 10: Nonverbal affiliative expressiveness and liking are positively related.
Theorem 11: Nonverbal affiliative expressiveness and similarity are positively related.
Theorem 12: Intimacy level of communication content and information seeking are inversely related.
Theorem 13: Intimacy level of communication content and reciprocity rate are inversely related.
Theorem 14: Intimacy level of communication content and liking are positively related.
Theorem 15: Intimacy level of communication content and similarity are positively related.
Theorem 16: Information seeking and reciprocity rate are inversely related.
Theorem 17: Information seeking and liking are negatively related.
Theorem 18: Information seeking and similarity are negatively related.
Theorem 19: Reciprocity rate and liking are negatively related.
Theorem 20: Reciprocity rate and similarity are negatively related.
Theorem 21: Similarity and liking are positively related.

Figures

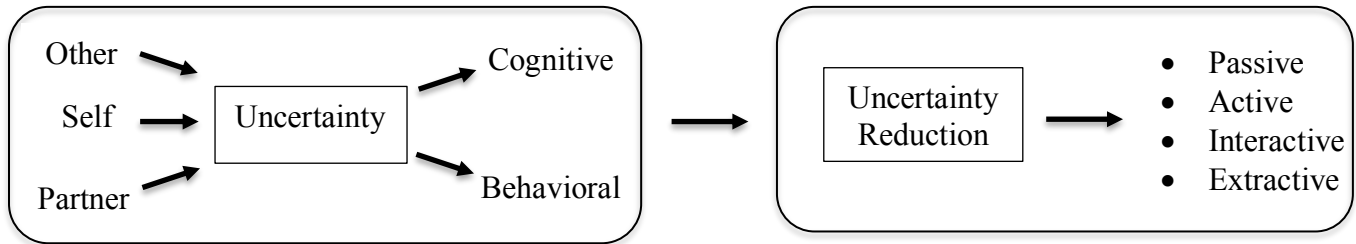**Figure 1. Tenants of Uncertainty Reduction**
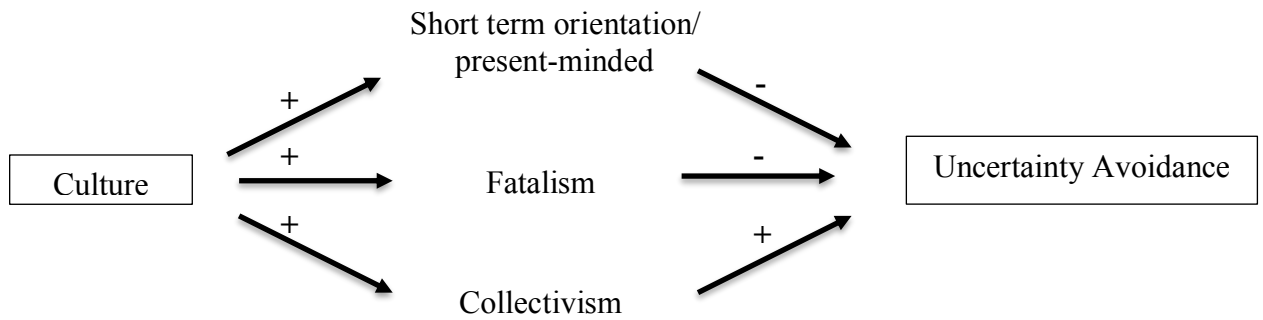

Figure 2. Predicted Effects of Culture on Uncertainty
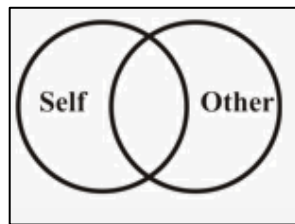

Figure 3. Image of Average Closeness

Figure 4.
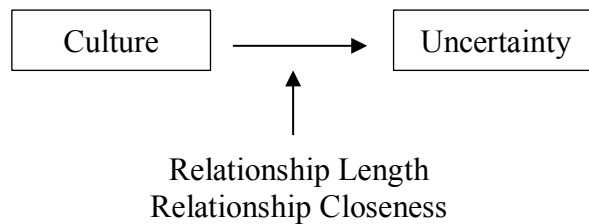
Tables

Table 1. Reports of Culture and Closeness

	1-Farthest in Relation	2	3	4	5	6	7-Closest in Relation	Total
Morocco	1	4	3	7	7	0	3	25
US	0	4	5	18	9	2	4	42
Total	1	8	8	25	16	2	7	67

Table 2. Self-Friendship Uncertainty
How certain are you about...
1. how committed you are to your friend (to the friendship)?[D]
2. your feelings for your friend?[D]
3. whether or not you want this relationship to last?[G]
4. how much you like your friend?[D]
5. how important this relationship is to you?[E]
6. how you feel about the friendship?[D]
7. whether you are romantically interested in your partner?[E]
8. whether or not you will want to remain friends in the long run?[G]
9. how much you want to work to keep this friendship?[D]
10. your goals for the future of the friendship?[G]
11. how ready you are to have a long term friendship with this person?[E]
12. whether or not you are ready to work to maintain your friendship?[D]
13. whether or not you want to stay in a relationship with your friend?[G]
14. whether you want your friendship to grow closer or remain like it is?[D]
15. your view of this relationship?[E]
16. where you want this friendship to go?[G]

Table 3. Partner Friendship Uncertainty
How certain are you about...
1. how committed your friend is to you (to the friendship)?[D]
2. whether or not your friend wants the two of you to remain friends in the long run?[G]
3. whether or not your friend wants this relationship to last?[G]
4. how much your friend likes you?[D]
5. how much your friend wants this relationship right now?[D]
6. how your friend feels about the relationship?[D]
7. how much your friend is romantically interested in you? [E]
8. whether or not your friend will want to be friends with you in the long run?[G]
9. how much your friend wants to work to maintain your friendship?[D]
10. your friends' goals for the future of the relationship?[G]
11. how ready your friend is to have a long term friendship with you?[E]
12. whether your friend wants your friendship to grow closer or remain like it is?[D]
13. whether or not your friend wants to maintain your relationship?[E]

14.   your friends view of this relationship?[E]
15.   where your friend wants this friendship to go?[G]

Note. There are three subscales for the self and partner uncertainty levels. [D]This represents items that are a part of the Desire Subscale. [E]This represents items that are a part of the Evaluation Subscale. [G]This represents items that are a part of the Goals Subscale. These items were not tested in this study, but are important to identify.

Table 4. Relational Friendship Uncertainty
How certain are you about...
1.   the definition of this relationship?[D]
2.   whether or not you and your friend feel the same way about each other? [M]
3.   whether or not you and your friend will stay together?[F]
4.   how you and your friend would describe this relationship?[D]
5.   the future of the relationship?[F]
6.   what you can or cannot say to each other in this relationship?[B]
7.   the boundaries for appropriate and/or inappropriate behavior in this relationship?[B]
8.   whether or not this friendship will end soon?[F]
9.   how you and your friend view this relationship?[M]
10.   the state of the relationship at this time?[D]
11.   whether or not your friend likes you as much as you like him or her?[M]
12.   the current status of this relationship?[M]
13.   whether or not this is a romantic or platonic relationship?[D] *
14.   the norms for this relationship?[B]
15.   where this friendship is going?[F]
16.   how you can or cannot behave around your friend?[B]

Note. There are four subscales for the relational uncertainty level. [B]This represents items that are a part of the Behavioral Norms Subscale. [M]This represents items that are a part of the Mutuality Subscale. [D]This represents items that are a part of the Definition Subscale. [F]This represents items that are a part of the Future Subscale. These items were not tested in this study, but are important to identify.

Table 5. Uncertainty Information Seeking Strategies

1. You feel your friend creating distance within your relationship, how likely are you to do the following?

- Ask you friend what's wrong[I]
- Ask another person why your friend might be acting differently[A]
- Look online to answer your questions about their behavior[E]
- Observe how your friend behaves the next time you are together[P]
- Do nothing[O]

2. You and your friend get into an argument, how likely are you to do the following?

- Remove yourself from the situation and reflect on your feelings[O]
- Observe how your friend responds and do the same[P]
- Confront your friend about the argument
- Express how you feel about the situation to your friend[I]
- Ignore what happened[O]

3. **You want to get to know your friend better, how likely are you to do the following?**

- Tell your friend a secret or share information about yourself[I]
- Ask your friend questions about themselves[I]
- Ask other people questions about your friend[A]
- Become involved in the activities your friend enjoys[O]

4. **You are unsure whether or not you want to continue your friendship, how likely are you to do the following?**

- Communicate your feelings about your relationship to your friend[I]
- Communicate your feelings about your relationship to another person[A]
- Reflect on your feelings by yourself[O]
- Do nothing[0]

5. **You find out your friend lied to you and they have never done this before, how likely are you to do the following?**

- Ask another person if your friend has ever done this before[A]
- Confront your friend and ask them why they lied[I]
- Wait it out and see how your friend continues to act[P]
- Attempt to catch them in the lie by creating a situation in which you observe their response[A] *(This question was not included in data analysis)*

6. **Your friend was supposed to call you last night but didn't, how likely are you to do the following?**

- Wait and observe your friends' behavior the next time you are together[P]
- Text your friend and ask what happened[I]
- Ask someone else if your friend has said anything to them[A]
- Look online to see where your friend is, or if they have posted on social media[E]

7. **Your friend wants to introduce you to one of their childhood best friends, how likely are you to do the following**

- Look them up online, Google, Facebook, etc.[E]
- Observe them at a social gathering[P]
- Ask your friend what they are like[A]
- Ask the person questions about themselves[I]
- Share information about yourself with the person[I]

8. **Your friend shows up several minutes late to meet with you and doesn't greet you with their typical, energetic "hi", how likely are you to do the following?**

- Observe their behavior and see what happens[P]
- Ask them if they are okay[I]
- Talk to others about your friend[A]
- Match their initial behavior and mood[P]

9. **You snap (get irritated or angry) at your friend out of nowhere, how likely are you to do the following?**

- Remove yourself from the situation and reflect on what happened[O]
- Apologize and talk with your friend about what happened[I]
- Turn to another person and ask them about the situation[A]
- Ignore what happened[O]

There are four information seeking strategies. [A] This represents behaviors that are part of the active information seeking strategy. [P]This represents behaviors that are part of the passive information seeking strategy. [I]This represents behaviors that are part of the interactive information strategy. [E]This represents behaviors that are part of the extractive information seeking strategy. [O]This represents behaviors that are "other", or not part of the information seeking strategies of active, passive, interactive, and extractive.

Table 6.
Culture Differences in Levels of Uncertainty

Measures	Morocco n = 25		US n = 46				
	M	*SD*	*M*	*SD*	*t*	*(df)*	*p*
Culture							
Self Uncertainty	4.64	1.08	5.23	0.99	2.35	(69)	.022 *
Partner Uncertainty	4.57	1.12	5.05	0.92	1.94	(69)	.057
Relationship Uncertainty	4.59	0.81	5.10	0.84	2.52	(69)	.014 *
Overall Uncertainty	4.60	0.79	5.13	0.83	2.62	(69)	.011 *

Note. N = 71
* *p* < .05 ** *p* < .01

Table 7.
Culture Differences in Information Seeking Strategies

Measures	Morocco n = 22		US n = 43				
	M	*SD*	*M*	*SD*	*t*	*(df)*	*p*
Culture							
Active	2.69	0.87	3.17	0.64	2.50	(63)	.015 *
Interactive	3.66	0.80	4.12	0.41	3.00	(63)	.004 **
Passive	3.29	0.60	3.53	0.40	1.97	(63)	.053
Extractive	2.85	1.08	2.89	0.88	0.17	(63)	.863
Overall ISS	3.12	0.68	3.43	0.40	2.28	(63)	.026 *

Note. N = 65
* *p* < .05 ** *p* < .01

Table 8.
Correlations among Uncertainty and Information Seeking Strategies

	1.	2.	3.	4.	5.	6.
1. Active ISS	--					
2. Interactive ISS	.38 **	--				
3. Passive ISS	.56 **	.46 **	--			
4. Extractive ISS	.54 **	.20	.38 **	--		
5. Self Uncertainty	-.01	.28 *	-.13	-.17	--	
6. Partner Uncertainty	-.08	.20	-.14	-.20	.67 **	--
7. Relationship Uncertainty	.20	.36 **	.12	-.03	.57 **	.65 **

Note. ISS= Information Seeking Strategy
* *p* < .05, ** *p* < .01

Table 9.
Correlations among Relationship Length, Closeness, and Uncertainty

		Relationship Length	Relationship Closeness
1. Self Uncertainty	Correlation	.26 *	.38 **
	Sig. (2-tailed)	.03	.00
2. Partner Uncertainty	Correlation	.12	.34 **
	Sig. (2-tailed)	.34	.01
3. Relational Uncertainty	Correlation	.15	.35 **
	Sig. (2-tailed)	.23	.00
4. Overall Uncertainty	Correlation	.20	.41 **
	Sig. (2-tailed)	.09	.00

* *p* < .05, ** *p* < .01

Table 10.

Correlations among Relationship Length, Closeness, and Information Seeking

		Relationship Length	Relationship Closeness
1. Active ISS	Correlation	-.02	.08
	Sig. (2-tailed)	.88	.54
2. Interactive ISS	Correlation	.11	.39 **
	Sig. (2-tailed)	.38	.00
3. Passive ISS	Correlation	.12	-.04
	Sig. (2-tailed)	.35	.77
4. Extractive ISS	Correlation	.02	-.02
	Sig. (2-tailed)	.87	.90

Note. ISS= Information Seeking Strategy

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

Table 11.

Culture Differences in Relationship Closeness

Measures	Morocco n = 25		US n = 42				
	M	SD	M	SD	t	(df)	p
Culture							
Relationship Closeness	4.08	1.61	4.29	1.31	-0.57	(65)	.570

Note. N = 67

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

Table 12.

Culture Differences in Relationship Length

Measures	Morocco n = 25		US n = 46				
	M	*SD*	*M*	*SD*	*t*	*(df)*	*p*
Culture							
Relationship Length	5.28	2.19	6.67	1.74	-2.94	(69)	.004 **

Note. N = 71

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

Table 13.

Correlations among Relationship Length , Culture, and Uncertainty

		Relationship Length
1. Self Uncertainty	Correlation	.20
	Sig. (2-tailed)	.09
2. Partner Uncertainty	Correlation	.20
	Sig. (2-tailed)	.09
3. Relational Uncertainty	Correlation	.26 *
	Sig. (2-tailed)	.03
4. Overall Uncertainty	Correlation	.25 *
	Sig. (2-tailed)	.04

* *p* < .05, ** *p* < .01