

Nonverbal Immediacy and Similarity Effects on Initial Intercultural and
Intracultural Interaction: First Impressions of U.S. and Middle Eastern Students

by

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ABSTRACT

In the U.S, Middle Eastern (M.E) students often struggle with negative biases toward them and experience isolation, discrimination, and report a lack of meaningful interactions with U.S. students. Against this backdrop, this dissertation explored the impact of enacted similarity and nonverbal immediacy on social attraction and friendship-potential between same-sex U.S. and M.E. international students during first time interactions on Zoom. A 2 (M.E. vs. U.S. confederate) x 2 (low vs. high similarity) x 2 (low vs. high nonverbal immediacy) x 2 (pre- vs. post-interaction) experimental design was employed, with participants reporting on their perceptions after viewing a profile of a confederate and then again after they interacted with the confederate on Zoom for three minutes.

Pre-interaction results indicated that M.E. women were perceived as the most socially attractive, highest friendship potential, and as most likely to engage in pleasant interaction, compared to the other three groups. This finding emerged even though U.S. women rated fellow U.S. women as more similar to them than they rated M.E. women. A potential explanation is intersectionality of gender and ethnicity, with U.S. women stereotyping M.E. women as quiet, submissive, and oppressed, and therefore have sympathy for them and expect them to be kind.

Post-interaction results revealed that in interactions between U.S. students, similarity impacted friendship potential but not social attraction, while nonverbal immediacy had a significant impact on both. In intercultural interactions between

the U.S. and M.E. students, both nonverbal immediacy and similarity impacted social attraction and friendship potential. There were especially sharp drops in social attraction and friendship potential when the confederates enacted low levels of nonverbal immediacy. Overall, nonverbal immediacy had stronger and more consistent effects compared to similarity. Results indicate that to make positive impressions, both U.S. and M.E. students should use nonverbal immediacy cues such as smiling, leaning in, and being attentive to their interactional partner rather than looking away. Future directions include determining if findings can be generalized to face-to-face interactions and to perceptions of individuals from various cultures.

I dedicate this piece of writing to my son, Maksim, my husband, Lingfeng Lu and my mother, Natalya Lapteva, without whom it would have been impossible to complete this dissertation.

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Chapter One: Introduction and Literature Review

In recent years the topic of “foreigners” has been the center of debate in U.S. policies pertaining to immigrants in the United States. With the 2020 events surrounding the death of George Floyd more attention has been brought toward the problem of biases held towards people who look or sound different from the majority of the population. Given the political climate reflecting a negative sentiment toward foreigners, as evidenced by former U.S. President Trump tweeting that U.S. women of color should “go back where they came from” (Rogers & Fandos, 2019), there is a dire need to promote understanding between people of different cultures and acknowledge the many benefits foreign nationals bring to the United States. Intercultural friendships are beneficial to societies in a myriad of ways, and it is one of the ways to promote understanding between people of different cultures. However, overcoming biases that are deeply ingrained in larger societal structures is a difficult task.

First, it is important to understand how nationals from other countries residing in the U.S. contribute to the U.S. and how they are perceived by the U.S. American population. One of the fundamental benefits of diversity, according to the contact hypothesis, is that intergroup contact can help reduce prejudice (Pettigrew & Troop, 2006). Furthermore, individuals from foreign nations provide various economic and social benefits to the United States. Sojourners, such as international students, have a positive effect on the U.S. economy, contributing 42 billion dollars during the 2016-2017 academic year (Institute of International Education, 2018). Beyond the economic benefits, numerous studies have shown diversity is associated with positive social and

intellectual outcomes (Smith & Associates, 1997; Vaccarino & Dresler-Hawke, 2011). Furthermore, positive inter-ethnic and inter-racial interactions are directly associated with retention, social self-concepts and satisfaction with college experience (Gurin, 1999; Smith & Associates, 1997). It follows then that international students who have intercultural friendships tend to fare better in college than those who do not. Intercultural contact between sojourners and the host population not only affects the attitudes of both groups, but has been shown to influence language learning motivation and to decrease language use anxiety (Kormos & Csizér, 2007) as well as positively affecting intercultural competence (Peng & Wu, 2016). Not only do the intercultural interactions between the U.S. population and sojourners affect the members of the groups that are directly interacting with each other, but it also impacts future interactions of people who hear about these experiences second hand. According to Cummings: “Students who are overseas report back on their experiences, influence the decisions of their younger peers, and help them to gain overseas admissions” (Cummings, 1984, p. 244).

Although there are various benefits from intercultural interactions, there are challenges in forming intercultural friendships, especially since people from different cultures often see themselves as different from one another. These challenges stem from “otherness” and assumptions of differences upon contact with people from different cultures. Various stereotypes are associated with different national cultures and foreignness. The assumptions formed in the larger society affect the interactions host populations have with international students and vice versa, which is moderated by public opinion (Berry & Kalin, 1979).

Therefore, before meeting anyone from another country, citizens of the host country have certain positive or negative associations with the country of origin or the foreigner host country citizens may also have negative biases. A common example of negative bias is U.S. American students' expectations that international students will have low English language proficiency. The generalization can extend to not only differences in languages, but differences in various other aspects. These generalizations can lead to the assumption of foreigners and foreign countries being vastly different from one own's culture in language, values, behavior, interests and so on. However, at times there are more differences between generational groups than there are between different national cultural groups due to vast globalization made possible through technological advances. Technology is connecting people and disseminating products. (Gidley, 2001). Young adults in many countries are spending more time on interactive media which results in sharing the same experiences of youth from around the globe compared with someone from a different generation but from the same national culture (Buckingham, 2014; Social media use around the world, 2021).

“Birds of a feather flock together” is indeed true, as people have a strong preference for similarity in various relationships including friendship (Malloy, 2018). The concept of two people perceiving each other as similar is referred to as homophily and was defined as the amount of similarity between two individuals (Rogers & Bhowmik, 1971). According to Byrne's reinforcement model (1971), the reason we view those that are similar to us positively is because it validates our own view of the world. The similarity-liking association is strongly mediated by the certainty of being liked prior to

interaction, but the strongest mediator after the interaction is fun and enjoyment (Hampton, Boyd & Sprecher, 2019). Not only are we attracted to people who we perceive are similar to ourselves, but we are uncomfortable with others challenging our beliefs; people also find those similar to themselves as more trustworthy (Singh, Tay, & Sankaran, 2017). Theoretically, the principle of homophily increases attraction and future interaction between people who perceive themselves as similar to each other (Rogers & Bhowmik, 1971). Thus, the increase in likability and engagement in future intercultural interactions is a desired outcome for formation of intercultural friendship.

Although various concepts have been investigated regarding the relationship between similarity and attraction, a topic that has often been neglected is nonverbal immediacy. Past studies suggest that we like people who we perceive as similar and those who enact nonverbal immediacy (Guerrero & Floyd, 2005). At the same time, some studies have shown that the attraction comes before the similarity, with those you are attracted to perceived as more similar to yourself (Morry, 2005). Furthermore, individuals who are highly immediate nonverbally are viewed positively (Guerrero & Floyd, 2005). However, the differences in the effect of perceived similarity and nonverbal immediacy have not been explored in the context of intercultural friendship formation. To expand on the interpersonal communication research on similarity and immediacy, this study examines how perceived similarity and nonverbal immediacy function to impact first impressions in intracultural versus intercultural interactions.

The following sections explore the research of interpersonal communication and psychology on first impression formation. Next, the literature in intercultural

communication regarding negative stereotypes and prejudice against international students is explored, focusing on the Middle Eastern group that is viewed as one of the biggest threats in the U.S. Finally, the literature on the variables of similarity, nonverbal immediacy, social attraction and roles of expectations is reviewed.

First Impressions and Thin Slicing

First impressions are formed spontaneously with very little effort and are based on limited information, but at times they can be very accurate predictions of other people's traits (Ambady, Bernieri, & Richeson, 2000; Carlston & Skowronski, 2005). The first impression formation process happens almost instantaneously and can have long term positive or negative effects on our attitudes and behaviors toward others (Todorov & Porter, 2014). It has been argued that impression formation has evolutionary roots and benefits humans by giving them an ability to instantly infer characteristics of other people, for reasons such as identifying a threat or a possible mate (Schaller, 2008). Research on “thin slice impressions” suggests that even brief observations (under a minute long) of a person’s behavior can help predict several outcomes, such as sales performance or teaching evaluations (Ambady et al., 2000). This is why initial interactions are so important; they generate somewhat lasting impressions that can either foster or impede friendship development.

Many judgments do not change significantly beyond initial impressions. This phenomenon is referred to as thin slice impressions because people are making lasting or “thick” judgments based on brief or “thin” slices of behavior. Research on thin slice impressions shows there are no significant differences in the accuracy of judgements

people make before versus beyond 5 minutes of observation; ultimately, 60 seconds was the optimal ratio between slice length and impression accuracy (Carney, Colvin, & Hall, 2007). Not only are the impressions lasting, but they are also hard to change. A meta-analysis by Ambady and Rosenthal (1992) concluded that predictions made based on observing under 30 seconds of behavior did not differ significantly from those made after observing behavior for 4 or 5 minutes.

When impressions are based on limited information, such as having a feeling or a hunch about someone without really knowing why, they are called affective first impressions. Affective first impressions can be positive or negative. A previous study has shown that participants can judge traits such as attractiveness, likability, trustworthiness, competence and aggressiveness in the first 100 milliseconds of a meeting; after 100 ms, the judgement becomes more negative, but the confidence in the judgement increases (Willis & Todorov, 2006). In experimental studies testing respondents' assessment of confederates, the accuracy rate of the judgement is influenced by the type of judgment made, amount of exposure, and temporal location of the slice of judged social behavior (Carney, Colvin, & Hall, 2007). In this study, the accuracy rate was the correlation between the judges rating and the target's rating.

Furthermore, there is a negative bias that is observed in the impression formation process. Such a bias may be particularly operative with people from other countries who seem different, because dissimilarity is related to less attraction (Cemalcilar et al., 2018). One possible reason for this is there is more risk involved in making an error in evaluating someone who is dangerous as safe, so there is a negativity bias. Most literature

on first impression stems from the field of psychology; however, as both nonverbal and verbal communication influence first impressions, it is imperative to explore this phenomenon from a communicative lens. As noted by Marek, Wanzer, and Knapp (2004):

Both emotion recognition and impression formation may be understood as the result of a perceiver integrating emotional information from multiple behavioral channels. In both emotion recognition and impression formation, social perceivers consider behavioral coherence in forming judgments of the target. (p. 265)

Research outside of the communication field focuses on the optimal length of the observation or interaction needed to form an accurate first impression, which is informative but does not provide in-depth understanding for the transactional communication process. Research on impression formation during initial interactions shows that impressions are made based on physical appearance, social roles, information-processing biases, body language, and “expressive behaviors” (Riggio & Friedman, 1986). Outward focus and fluid expressive behaviors have been shown to be positively correlated with favorable impressions for males or females, more facial expressiveness leads to favorable impressions (Riggio & Friedman, 1986).

First impressions have been studied in the context of interpersonal, business, and romantic relationships. First impressions are important for college students because college roommates with a positive first impression are more likely to continue living together and report more positive interaction compared to those who had a negative first impression (Marek, Wanzer, & Knapp, 2004). However, this process still needs to be

explored more in the context of intercultural interactions and in particular as a gateway to a possible friendship. Consistent with Marek et al. (2004), research should go beyond just looking at quick judgments based on static behaviors by also looking at how interactive behavior influences first impressions on intercultural and intracultural friendships.

Seventeen years later, this interactive behaviour is still not often explored in the studies of intercultural friendship. The majority of past studies are based on retrospective self-reports of interview or survey research. This study develops this line of research further.

Intercultural and Intracultural Friendships

There have been numerous ways of defining friendship, as different cultures and different individuals within the same culture might assign various meanings to this type of a relationship. For example, Davies et al., (2011) defined intercultural friendships as: “cases where the participant reported having at least one ongoing, meaningful relationship with a specific outgroup member or members that was closer than that of a mere acquaintance (in which the relationship is based solely on familiarity)” (p. 334). Often scholarly definitions vary, but also there are cross-cultural differences as well as individual differences in what friendship means. However generally friends are considered in-group members.

According to Giles and Giles (2012), social categories or groups that a person does not relate to or identify with are outgroups, whereas social categories or groups a person does identify with and relate to are ingroups. Intercultural and interethnic friendships differ. Both intercultural and interethnic friendships involve two people from

different outgroups, but intercultural friendships can be distinguished from interethnic friendships in that people in intercultural friendships are born and raised in different countries. For the purpose of this study, interethnic interactions are defined as those between people of different ethnicities, while intercultural interactions are defined as interactions between people from different national cultures. For example, African American, Asian American, and other minority ethnic groups in the United States share many parts of the larger national culture they have been socialized into their whole lives, which makes friendships between people of these different ethnicities interethnic. International students and U.S. students have different home countries, which means that they usually have fewer cultural experiences in common than do people who were born in the U.S. thus, this situation makes their relationship intercultural. Although same generation groups might share a variety of experiences and consume similar popular culture products, there is still limited interaction between host population and sojourners, and there might be more perceived cultural differences than actual cultural differences. These definitions are consistent with some, but not all, of the literature. One of the challenges in the previous literature is the multitude of ways that scholars have defined culture and related terms. This diversity makes it difficult to build theoretical coherence, as scholars interchangeably use terms such as intercultural, international, inter-racial, interethnic and cross-cultural . One of the biggest distinctions (between intercultural and interethnic friendships) for the purpose of this study is that international students are sojourners who have a “home” to go back to, unlike minority ethnic group members who identify the U.S. as their home. Based on these distinctions, this study defines

intercultural friendship as a platonic friendship between people from different countries, with one individual physically residing in the nation of the other. Intercultural friendships are contrasted with intracultural friendships, which are interpersonal friendships between two individuals from the same national culture.

Intercultural friendships can be beneficial to people in numerous ways (Lee, 2006), including reducing prejudice and increasing open mindedness, which in turn helps people reach mutual understanding (Gareis et al., 2019). Indeed, Pettigrew found that people who have intercultural friendships tend to have more positive attitudes and interactions with people from other cultures (Pettigrew, 1997). Intercultural friendships have also been shown to increase positive global outlook for both outgroup and ingroup members (Todd & Nesdale, 1997; Yum, 1998). Having international students as classmates or roommates is valuable in altering the biased beliefs and misperceptions that U.S. students may have toward people of other nationalities (Wang, Ahn, Kim, & Lin-Siegler, 2017; McFaul, 2016).

Intercultural friendships also benefit international students. Researchers have emphasized the prominence of social interactions in shaping the acculturation process and academic success of international college students (Buzzelli, 2016; Tawagi & Mak, 2015). On the other hand, international students who do not have satisfying intercultural friendships with U.S. students are more likely to report suffering disappointment, psychological depression, isolation, and social difficulties (Chen, 2006).

Despite the positive benefits of intercultural friendships, people sometimes face challenges in developing such friendships. Two threats to developing and sustaining

intercultural friendships include “anxiety concerning social interaction with out-group members and feelings of threat arising from negative stereotypes of the group – [which] have been shown to be especially powerful predictors of prejudice attitude” (Garies et al., 2019, p. 3). Therefore, stereotypes and biased expectations can serve as a barrier to friendship development and positive interactions between people from different cultures. This barrier exists in part because negative stereotypes and other biases can make it more difficult for people from outgroups to make positive first impressions.

An example of one group that is perceived negatively by some people in the United States is people from countries in the Middle East where the state religion is Islam. Even among interethnic perceptions in the U.S., Arab Americans were viewed as less similar and less “American” compared to white Americans, African Americans, Native Americans, and Asian Americans (Dovidio, Gluszek, John, Dittmann, & Lagunes, 2010). Past studies suggest that people from the Middle East are stereotyped in terms of being associated with dark skin, the oppression of women, danger, and terrorism (Ghavami et al., 2011). These stereotypes became even more prominent after the terrorist attacks on September 11, 2001, the ongoing wars in Iraq and Afghanistan, and the terrorist attack at the Boston marathon, which all negatively affected the perceptions of some U.S. Americans toward people of Middle Eastern appearance living in the United States (Merji, 2019). As Merji noted in the context of anti-Arab and anti-Muslim discourse in the U.S.: “The political rhetoric seeps into the attitudes of the American way of life, particularly as it relates to higher education and the nature of intergroup contacts between national and international student groups” (2019, p. 879).

These negative perceptions can make it difficult for people of Middle Eastern appearance to make good first impressions when interacting with people from the U.S. An extreme example of these negative perceptions is the 2001 hate crime in Arizona, when, in the aftermath of 9-11, Frank Roque murdered Balbir Singh Sodhi because he mistakenly assumed Sodhi was Arab (Lyons et al., 2010). A comprehensive study looking at attitudes toward Arabs concluded: "...in contemporary U.S. society Arabs are uniquely perceived as threatening and anxiety evoking" (Lyons, et al., 2010 p. 1277).

Not only are Middle Easterners viewed negatively, but there is a general lack of interaction between people from the U.S. and the Middle East, even on college campuses. This is unfortunate, because positive interaction might counter some of the negative portrayals of people from the Middle East. According to Trice (2004), 63% of Middle Eastern international students in the U.S. interact with American students once a month or less, and 48% of these students reported an interaction either never happening or only once a semester. Furthermore, there have been instances of verbal assault and physical attacks against international students, including those from the Middle East, based on negative perceptions of their country of origin, which Lee and Rice (2007) labeled as 'neo-racism'.

Negative biases directed toward students from the Middle East seem likely to still be prevalent today. Given these negative biases and the scarce interaction between Middle Eastern students and U.S. students, U.S. students are likely to perceive Middle Eastern students as more different and less positively than fellow U.S. students, which leads to the first hypothesis:

H1: U.S. students perceive more (a) similarity, (b) social attraction, (c) potential viable friendship and d) have more positive expectations with fellow students from the U.S. compared to students from the Middle East before interacting with them.

Influence of Communication in Intercultural Interactions

Interacting with people from a different culture can help alter some stereotypes. Allport's (1954) contact hypothesis predicts that ingroup and outgroup members perceive each other more positively after interacting—given certain conditions. A classic study showed that when African Americans and white Americans were placed in housing near each other and provided with opportunities for more intimate interaction, African Americans' perceptions of whites became more positive, and white Americans' perceptions of African Americans became even more positive in comparison (Deutsch & Collins, 1951).

Meta-analyses conducted by Pettigrew and Tropp (2006; 2008) revealed that in accordance with the contact hypothesis, prejudice is reduced through interactions by enhancing knowledge, reducing anxiety, and increasing empathy toward the intergroup contact. This meta-analysis of more than 500 studies demonstrated a significant negative relationship between contact and prejudice (Pettigrew & Troop, 2006). Contact or interactions between two members who identify themselves as being from different cultures is the first step in intercultural friendships.

The premise of contact hypothesis is exposure to diverse groups increases knowledge and reduces prejudice toward those groups, and reduces biases. The contact hypothesis predicts the outcome of an intercultural interaction based on four conditions:

equal status, common goals, intergroup cooperation, and support of authorities (Pettigrew, 1998). However, even without all the conditions met, interaction between two people from different cultures positively influences the perceptions they have of one another. Research on college students has shown that interethnic contact results in positive attitudes towards those minority groups (Shook & Fazio, 2008). As per the contact hypothesis, the key for developing intercultural friendships is interaction with diverse groups; in the field experiment conducted by Shook and Fazio (2008), white students reported positive changes in their attitude and perceptions based on their interactions with interracial roommates. Other studies have found similar findings; Martin et al.,'s (2010) study on intercultural friendship concluded that students with few intercultural friendships have a narrower definition of race compared to those with more diverse friendship networks. These studies support the contact hypothesis assumption that intercultural contact can lead to reduction of prejudice and intercultural friendships start with first impressions during initial interactions.

Communication scholars have noted that the study of intercultural friendships is in the beginning stages within the intercultural communication field (Chen, 2006; Gareis, 2012; Garies et al., 2019). Scholars who have dedicated a significant portion of their careers to studying intercultural friendships include Collier (1988, 1998; 1999; 2002), Gudykunst and colleagues (1989, 1991, 1994, 2004), Gareis, (2012, 2019) and Trice (2004, 2007).

Collier's (1996) contributions include studying the impact of open-mindedness and stereotypes on how intercultural friendships develop as well as other work

examining in-group/out-group relationships (Collier, 1998). However, the focus was on the perceptions of the minority group members instead of the members of the majority group.

Gudykunst believed intercultural communication scholars should borrow concepts from interpersonal theory when investigating topics in intercultural communication (Gudykunst & Lee, 2003). In 1985, Gudykunst used social penetration theory (Altman & Taylor, 1973) to examine self-disclosure in intercultural friendships. Within the context of close friendships, international students reported high levels of similarity regardless of whether they are in an intracultural or intercultural relationship (Gudykunst, 1985). However, the results of a second study revealed significant differences between intracultural and intercultural penetration for friendships that were less than one year old. Gudykunst also investigated similarity and attraction in the context of inter-racial and co-cultural friendships, but not international friendships. Gudykunst used his anxiety-uncertainty management (AUM) theory to compare anxiety level and uncertainty, and these studies revealed that people in collectivistic cultures experience more uncertainty and anxiety during initial intercultural communication than individualistic cultures (Gudykunst et al., 1996). Pei Wen Lee (2006) also noted that self-disclosure and similarity were common activities in intercultural relationship formation. Gudykunst's exploratory studies contributed greatly and paved the way for future studies to discover what influences the differences in perceived similarity between intracultural and intercultural friendships. Furthermore, the American students' perception remains

unknown, as the results of the first study were based on self-reported measures of international students.

Another important line of research on intercultural friendships is Gareis' (1995, 2012, 2019) work. The results of her recent studies show that international students in the U.S. have tremendous difficulty forming and maintaining friendships with U.S. Americans. Sojourners' lack of friendships with members of the host society contribute negatively to language acquisition and academic performance. Lack of friendships can also lead to more loneliness, depression, and a general negative evaluation of their experiences abroad, compared to international students who have at least one host culture friend (Gareis, 2012). The problem remains, as more than 30% of international students in the U.S. do not have a single American friend (Gareis et al., 2019). A review of this research reveals several gaps, including how international students can communicate in ways that make them more likely to make friends while in the U.S.

Another body of literature on intercultural friendships explores comparisons of friendship across cultures. These studies focus on the difficulty certain ethnic groups or people from a certain region in the world have in their relationships with people from the U.S. One example of this type of work is Chen's (2006) research on East Asian sojourners' difficulty in intercultural friendships in the U.S. Studies often only look at the perception from the foreigners' side. The problem with this body of literature that focuses on surveys is it is only able to capture one side of the story, most of the time the studies described above used surveys of international students. As it takes two to tango, it takes both parties to form a voluntary relationship with each other that they must identify as

friendship. Furthermore, asking the group with less power in the interaction why they are unsuccessful in achieving their goal of acquiring a friend from the U.S. seems somewhat problematic if they feel they have no control of the situation. It seems likely that international students could benefit from understanding how to communicate more effectively with U.S. students, particularly concerning what to do verbally and nonverbally to make positive first impressions and thus pave the way for positive future interactions.

People arriving from abroad to an alien cultural environment are at a disadvantage in many ways. The unique contribution that communication scholars can make is to help provide the communication tools that foreigners need to increase their likability which can then translate to their feeling more confident in U.S social situations, putting them in a better position to make friends and acquaintances. As previously mentioned, people from collectivist cultures are likely to feel uncertain in initial interactions. According to uncertainty reduction theory, uncertainty is related to anxiety, and high levels of anxiety are related to difficulty in initiating relationships (Guerrero & Andersen, 1991).

Past research has been somewhat consistent in showing that cultural differences have the most influence on intercultural friendships during the initial stage of friendship formation (Chen, 2003; Gudykunst, 2001). As relationships develop, cultural differences become less of a barrier to communication: past studies have shown no significant difference between close intracultural friendships and close intercultural friendships (Gudykunst, 2001). Developing and providing effective strategies to decrease uncertainty, and thus anxiety, will help increase the chances of positive intercultural interactions.

Although some research has been conducted on intercultural friendship communication, the pragmatic aspect of this real-life problem is missing: how does this apply to the *development* of intercultural friendships? Here, scholars must turn to the basics, and a common predictor of future interaction and relationship development is mutual social attraction.

Social Attraction and Potential Friendship

Simpson and Harris (1994) defined attraction as a motivational state in which people are predisposed to think, feel, and behave positively towards another person. When a person has a positive predisposition to the sender of a message, according to Cialdini (2001), the speaker has power over that person, because people are more easily persuaded by people they like. Furthermore, social attraction is a way to keep and gain esteem (Jones, 1964), which might be needed even more in intercultural friendships that are characterized by uncertainty and anxiety on the part of the nonnative English speaker. By better understanding which communicative behaviors repel or attract others in the context of intercultural friendships, we can gain a better understanding of interpersonal communication as well as develop practical applications to everyday life. There are at least four types of attraction, some of which may overlap: sexual attraction, physical attraction, social attraction, and task attraction (Guerrero, Andersen, & Afifi, 2017). For future friends, social attraction, which involves wanting to get to know and spend time with someone, lays the foundation for friendship. Social attraction also involves enjoying being around someone and seeing someone as fitting in with one's social network.

Physical attractiveness can also play a role, given that people tend to have positive impressions of those they perceive to be good-looking. A plethora of studies support this, such as the body of research on “halo effect”; for review of literature on human attractiveness and Halo Effect, see Guerrero & Floyd, 2005. These studies show that when people rate someone as physically attractive, they tend to stereotype them as having an array of positive internal characteristics that match their positive external appearance, such as intelligence, kindness, confidence, and sociability. However, Lee and Rice (2007) demonstrated that communication plays a major factor, along with physical attraction, on social attraction in intracultural and intercultural interactions. When people like someone’s personality, they see that person as more attractive, both physically and socially. Interpersonal Appearance Theory (hereafter IAT) further explains the relationship between physical appearance and verbal communication in initial interactions. Lee and Rice, (2007) shows how strongly communication is related to social attraction. In intercultural interactions, communication may also have the power to alter the first impressions people have about others.

When people find someone pleasant and enjoyable to interact with, they will rate that person as more socially attractive. Conversely, if someone is unpleasant, they will rate that person as less socially and physically attractive. It is therefore logical that attraction can affect the desire and willingness to develop a friendship. Based on findings from the broader literature on interpersonal communication, two types of communication

may be especially likely to foster positive first impressions—similarity and nonverbal immediacy.

Similarity

The degree to which people perceive one another as similar versus dissimilar is a major theme in relational communication (Guerrero, Andersen, & Afifi, 2017). Past research strongly suggests that homophily, or similarity, is a powerful influencer of attraction in close relationships (e.g., Byrne 1971; Smith, Byrne, and Fielding 1995; Gareis, 1995). Homophily in friendship formation is an important concept in every culture, according to Gareis (1995), because people develop self and role identities by interacting with people who are similar to them. Furthermore, research suggests that actual similarity matters little compared to perceived similarity. Perceived similarity in self-disclosure is one common factor influencing social attraction in both intracultural and intercultural interactions. There are different types of similarity: attitudinal similarity, perceived similarity, actual similarity, communication skill similarity, and physical attraction similarity. Attitudinal similarities are one of the most studied similarities where people share similar attitudes, beliefs, and values. Similarities can be actual, where both individuals share the same beliefs, or they can be perceived similarities, based only on the perception of an individual, which may or may not be in congruence with reality (Guerrero, Andersen, & Afifi, 2017).

According to Newcomb's Balance Theory (1961), similarity acts as a positive reinforcer. Differences are cognitively stressful, and dissimilarity is likely to be a

negative reinforcer and research further suggests relationships end due to people perceiving each other to be too different resulting in incompatibility of attitudes and values (Baxter, 1986; Karney & Bradbury, 1995).

Perceived similarity leads to more positive evaluations of people. This can be further explained by Byrne's (1971) reinforcement model, which states that we are attracted to other people who are similar to us because they reinforce our worldviews (Guerrero et al., 2017). Another plausible explanation for attraction toward similar individuals is they are perceived as more trustworthy because people trust those who are like them (Guerrero et al., 2017). When looking at similarity in terms of similar and different cultural backgrounds, benefits of friendships between people of similar cultural backgrounds include the ability to better relate to each other, while different cultural background friendships offer an opportunity to learn new things (Vaccarino & Hawke, 2011).

In his studies examining perceived similarity in the context of intracultural and intercultural friendships, Gudykunst (1985) concluded, "perceived similarity exerts an influence on intracultural, as well as intercultural attraction. This perceived similarity is reinforced as the relationship develops over time..... Once a relationship reaches the stage of friendship, the majority of the interaction has a personalistic focus" (p. 281). However, as Gudykunst (1985) noted, "Neither of the studies ... was designed to test specific hypotheses. Rather both studies were designed to explore whether selected variables operate in a similar fashion in close intracultural and intercultural relationships" (p. 281). The first study of the two studies done by Gudykunst (1985) on similarities was

based on perceptions of international students from various countries, leaving the question of how U.S. students' perceptions vary across intracultural and intercultural friendships. Given the literature showing that similarity is a critical part of social attraction and friendship development, the following hypotheses are advanced:

H2: Within intracultural interactions, U.S. students exposed to a U.S. student enacting similarity will experience a greater increase in (a) social attraction and (b) potential for viable friendship compared to U.S. students exposed to a U.S. student enacting dissimilarity.

H3: Within intercultural interactions, U.S. students exposed to a Middle Eastern student enacting similarity will experience a greater increase in (a) social attraction and (b) potential for viable friendship compared to U.S. students exposed to a Middle Eastern student enacting dissimilarity.

Another impacting factor in our relationships with others is our expectations. Not only are people likely to be socially attracted to and want friendships based on homophily, people expect in general to have more positive interactions with others that are similar to them compared to those that are dissimilar. This assumption leads to the the next set of hypotheses:

H4: Within intracultural interactions, U.S. students exposed to a U.S. student enacting similarity report that their interaction was more pleasant than expected.

H5: Within intercultural interactions, U.S. students exposed to a Middle Eastern student enacting similarity report that their interaction was more pleasant than expected.

Nonverbal Immediacy

Andersen (1985) defined immediate behaviors as behaviors that show warmth, availability, decreased psychological distance, and decreased physical distance. These behaviors thus promote involvement, which is important in friendship formation and in making a positive first impression. In the process of impression formation, nonverbal communication plays a dominant role, due to the short time it takes to formulate first impressions. One of the reasons humans make judgements based on limited information is to help reduce uncertainty and become more able to predict the actions of others. In this way, first impressions contribute to the formation of expectations about the behavior of others and whether we want to form friendships (Riggio & Friedman, 1986). First impressions, therefore, seem inherently inseparable from interpersonal communication. In particular, nonverbal immediacy plays a larger role than verbal messages in some instances, with some scholars arguing that even more than verbal communication, it is nonverbal immediacy that is a stronger predictor of emotional and relational closeness (Guerrero et al., 2017). It is important to note that nonverbal immediacy is not judged by any singular nonverbal behavior, but instead by a combination of nonverbal cues. The perception of nonverbal immediacy is socially contextual. Most importantly, it is highly dependent on perception, and the receiver of the message must perceive the nonverbal immediacy in the nonverbal behavior of the message sender (Guerrero et al., 2017).

Some of the nonverbal behaviors that communicate nonverbal immediacy include: visual, spacial, tactile behaviors, body movement, vocalics, and chronemics. When evaluating nonverbal immediacy behaviors, they must be perceived as appropriate

and welcomed to make a positive first impression, which depends on various factors including culturally appropriate norms in the U.S. For nonverbal communication, both static and dynamic cues contribute to first impression formation (Naumann, Vazire, Rentfrow, & Gosling, 2009). Seminal studies found the following to have a significant effect: style of clothing (Howlett, Pine, Orakçioğlu, & Fletcher, 2013), expressive behaviors (Riggio & Friedman, 1986), facial expressions (Naumann et al., 2009; Riggio & Friedman, 1986), posture (Naumann et al., 2009), and cosmetics (Huguet, Croizet, & Richetin, 2004).

The majority of these studies found some sex differences in the criteria of formation of first impressions of men and women, but little is known in the context of intercultural communication and friendship. Past research indicates numerous nonverbal cross-cultural differences between Arabic and Western cultures, including different norms for proximity, physical contact, and gesture usages (Hall, 1966; Hofstede et al., 2005). However, there have been no intercultural interaction experiments to test the effects of nonverbal immediacy on the first impressions of the members of the host culture. This lack of experiments leads to the following hypotheses:

H6: Within intracultural interactions, U.S. students exposed to a U.S. student enacting high nonverbal immediacy will experience a greater increase in (a) social attraction and (b) potential for viable friendship compared to U.S. students exposed to a U.S. student enacting low nonverbal immediacy.

H7: Within intercultural interactions, U.S. students exposed to a Middle Eastern student enacting high nonverbal immediacy will experience a greater increase in (a) social

attraction and (b) potential for viable friendship compared to U.S. students exposed to a Middle Eastern student enacting low nonverbal immediacy.

H8: Within intracultural interactions, U.S. students exposed to a U.S. student enacting nonverbal immediacy will report that their interaction was more pleasant than expected.

H9: Within intercultural interactions, U.S. students exposed to a U.S. student enacting nonverbal immediacy will report that their interaction was more pleasant than expected.

Based on the past literature and the strong direct effects of both nonverbal immediacy and perceived similarity on social attraction, it follows that there will be a combination effect such that people who enact both similarity and nonverbal immediacy will make the best positive impression. Conversely, engaging dissimilarity and low nonverbal immediacy should result in the greatest decrease in social attraction for both intracultural and intercultural groups. Finally, it is possible that culture (U.S. student versus Middle Eastern student) could interact with these variables. If the first hypothesis is correct, and U.S. students initially rate Middle Eastern students as lower in social attractiveness, friendship potential, and similarity than they rate fellow U.S. students, the increase after interacting with a Middle Eastern student who is similar and nonverbally immediate may be especially large. This reasoning leads to the following hypotheses and research question:

H10: Within intracultural interactions, U.S. students exposed to a U.S. student enacting high nonverbal immediacy and similarity will experience the greatest increase in

(a) social attraction and (b) potential for viable friendship whereas U.S. students exposed to a U.S. student enacting low nonverbal immediacy and dissimilarity will experience the smallest increase (or largest decrease) in these variables, across the four conditions.

H11: Within intercultural interactions, U.S. students exposed to a Middle Eastern student enacting high nonverbal immediacy and similarity will experience the greatest increase in (a) social attraction and (b) potential for viable friendship compared to U.S. students exposed to low nonverbal immediacy and dissimilarity.

H12: Within intracultural interactions, U.S. students exposed to a U.S. student enacting nonverbal immediacy and similarity will report that their interaction was the most pleasant compared to expectations, whereas the U.S. students interacting with U.S. students enacting dissimilarity and low nonverbal immediacy will report the least pleasant interactions compared to expectations.

H13: Within intercultural interactions, U.S. students interacting with a Middle Eastern student enacting nonverbal immediacy and similarity will report that their interaction was the most pleasant compared to expectations, whereas the U.S. students enacting dissimilarity and low nonverbal immediacy will report the least pleasant interactions compared to expectations.

RQ1: Do culture (U.S. versus Middle East), enacted similarity, and enacted nonverbal immediacy interact to predict changes in (a) social attraction and (b) potential for viable friendship?

RQ2: Does culture (U.S. versus Middle East), enacted similarity, and enacted nonverbal immediacy interact to predict the degree to which interactions are more or less pleasant than expected?

Summary

This chapter explored the literature on different types of friendships, identifying the largest point of divergence between intracultural and intercultural friendships being in the initial stages of friendship formation. In the U.S. among sojourners, those from the Middle East are perceived most negatively and are susceptible to negative biases. Furthermore they struggle in forming friendships with U.S. students. The factors influencing the initial stages of friendship are social attraction, expectations and plausibility of developing a friendship in the future during the first interaction. As first impressions play a lasting role on our judgement of others, this study examined the factors that influence three main variables: social attraction, potential friendship, and positive expectations. According to previous interpersonal communication literature, the two variables that make the largest impact are homophily and nonverbal immediacy. However, past studies have not compared the effects of these two variables together and not in the context of comparing intercultural and intracultural interactions. This led to a set of hypotheses predicting how similarity, immediacy, and the interaction of the two would affect various aspects of first impressions of Middle Eastern and U.S. students. Whereas previous studies on international students have used self-report data of the minority group, this study focused on the perceptions of U.S. students and in an experimental design study which allows for more control and manipulation of

interactions. The next chapter outlines the methodology used to test the proposed hypothesis and research questions.

Chapter Two: Methods

To explore the effects of enacted similarity and nonverbal immediacy on social attraction, perceived friendship potential, and expectations for positive interactions in the context of a first-time encounter among college students from the U.S. with a confederate (acting as a fellow participant) from either the U.S. or the Middle East, an experiment was conducted. Specifically, a 2 (U.S. vs. Middle Eastern confederate) by 2 (high versus low similarity) x 2 (high versus low nonverbal immediacy) experimental design was utilized. For the purpose of observing the interaction as it happens and controlling the proposed variables, the experiment was designed to enlist the help of eight college student confederates. Middle Eastern confederates were recruited from the pool of volunteers from the Muslim Student Association of the university and through social media listings for Arabic students. Three students were from Saudi Arabia and one male confederate was from Algeria. U.S. student confederates were recruited from upper division communication classes and professor recommendations.

The process of selection of confederates was conducted by having potential confederates submit a short message of intent and three photographs, followed by face-to-face interviews. The hired confederates went through IRB training, were trained in the laboratory to act out the manipulations and were compensated \$15 per hour for their time, which was recorded in time logs.

To simulate intracultural and intercultural interaction, avoid social desirability bias, and increase external validity, the U.S. and Middle Eastern confederates pretended to be fellow participants in the study and actual participants were not aware that the study

involved looking at cultural differences. Deception was necessary, so the participants were made to believe they were interacting with another student who, like them, was recruited for the study and was receiving extra credit for participation, instead of being a paid member of the research team. Half of the confederates were U.S. students, while the other half were from the Greater Middle Eastern area. By interacting with participants who were all U.S.-born students, these two groups represent intercultural and intracultural interactions.

The study was approved by the Internal Review Board (IRB) #MOD00012632 and confederates went through IRB online training and in-lab training prior to first contact with any participants. Recruitment of participants took place from January 2020 to June 2020, with some interruption in March due to the COVID-19 quarantine. Although the original study was designed to be conducted in the laboratory with face-to-face interactions, the COVID-19 pandemic made it impossible to continue face-to-face interactions. After running a few conditions in the laboratory prior to the Pandemic, the decision was made not to use those data and to begin collecting data using interactions on Zoom, which is a software that provides videotelephony and online chat services for teleconferencing, telecommuting, distance education, and social relations. Confederates received additional training in enacting the manipulations on this medium.

Participants

Undergraduate students were invited to participate in a 30-minute Zoom session between the dates of March 25th to June 10th, 2020. A total of 130 students participated in the experiment. Twelve were excluded due to not passing the reliability check that was

built into the survey. Another two were excluded due to participants guessing the manipulation of the variables before the variables were disclosed during the debriefing. There were four non-heterosexual participants. A decision was made to have non-heterosexual participants interact with individuals of the opposite-sex so that romantic potential was eliminated across all of the dyads. However, this introduced an additional level of dissimilarity for non-heterosexual individuals because everyone else interacted with a same-sex partner. Additionally, the four non-heterosexual individuals were all males. For these reasons, and because there were not enough non-heterosexual participants to make any comparisons, these data were excluded from the analyses. So, a total of 112 university and community college students comprised the final sample. There was an equal distribution across the years in college: freshmen (n=33), Sophomore (n=31), Junior (n=21), and Senior (n=26) with one person not indicating a year.

Participants represented nine different majors as can be seen in Figure 1:

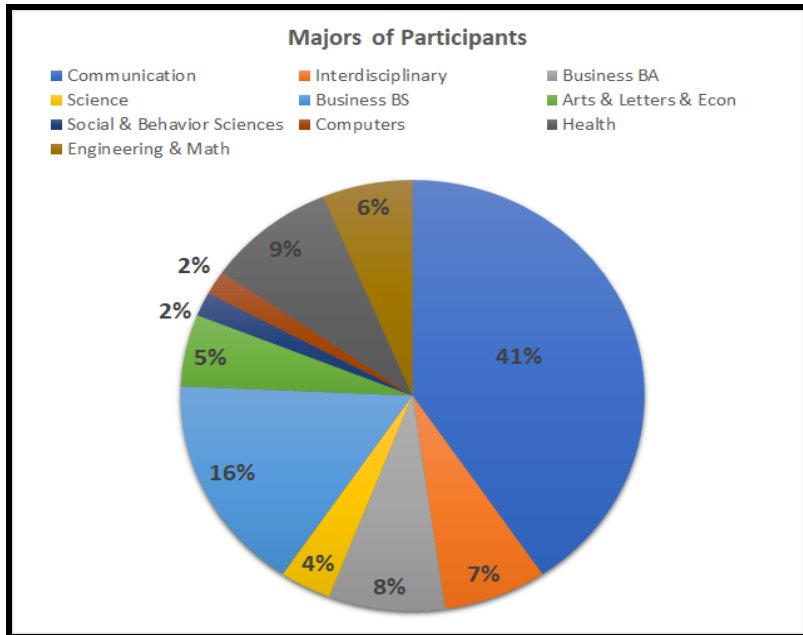


Figure 1: Majors of Participants

The majority of the participants identified as White (n=62), followed by Hispanic (n=23), African American (n=11), Asian-American (n=9), Middle Eastern (n=5), Other (n=2). Average age of participants was 21 years old but ranged from 18 to 52 years old. To control for similarity, Middle Eastern-Americans were assigned to American confederates.

The distribution of participants across the four manipulated conditions is as follows:

Immediacy/Similarity	U.S.	M.E.	Total
High/High	13	14	27
High/Low	12	16	28
Low/High	12	17	29
Low/Low	14	14	28
Total	51	61	112

Table 1: Per Cell Distribution of Immediacy and Similarity Conditions

Manipulations

Intracultural versus Intercultural Comparison Groups.

Participants were assigned to interact with either a U.S. (intracultural) or Middle Eastern (intercultural) student, who unbeknownst to them was a confederate of the same sex. Each condition included data using four different confederates (two male and two female). All eight confederates went through IRB training, 6 hours of in-laboratory training, and two hours of Zoom (online) training. Two sessions of training were conducted for both female and male confederates, where they practiced enacting

similarity and nonverbal immediacy that was consistent with each other and the condition. As noted previously, initially confederates were trained to act in the laboratory setting, then due to COVID19 the protocol was revised from face-to-face to Zoom interaction (see protocol in Appendix F).

Past studies have indicated that individuals perceive people with similar names as more likable (Jones, Pelham, Carvallo, & Mirenberg, 2004). Therefore the male confederates from the Middle East were named Ali and from the U.S. Alan. Female Middle Eastern confederates were named Alia and U.S. female confederates were named Ally. Due to implicit egotism, if a participant's name started with an A, other names were used. Therefore, when a participant named Alan appeared, the confederate used that name Mathew or Muhhamed.

Similarities Manipulation and Manipulation Check

Participants were asked to complete a brief online survey about themselves using Google Forms for the purpose of determining eligibility, and also to enable similarity conditions to be manipulated (see Appendix C). They were asked to upload their picture and to indicate their major, age, five hobbies, favorite movie, likes/dislikes, and favorite food. The participants were asked to rate their hobbies and interest in the order of importance to them.

The similarity condition in the study was met when the confederate enacted a similar major and two central hobbies, as well as a few other similar secondary interests. The difference condition was met when the confederate communicated no similar hobbies or interests. The manipulation check for similarity was done by comparing what the

participant indicated in their survey compared to what the confederate said during the interactions--based on the transcript of the conversation. See Appendix for coders' similarity manipulation check (Appendix E). Coders compared the similarity between the participants' prescreening survey--where they wrote about their major interests, favorite food and movies-- to the transcripts of what confederates said during the interaction. Inter-item reliability for the observed similarity scale was .991 using Cronbach's Alpha. The inter coder reliability was .954 based on inter-class correlation. Therefore the coders agreed with over 90% accuracy on the portrayal of similarity in the interactions.

Nonverbal Immediacy Manipulation and Manipulation Check

Nonverbal immediacy behaviors in many cultural contexts convey warmth, empathy and closeness by lessening physical and/or psychological distance (Mehrabian, 1972). Nonverbal immediacy cues are also a way of conveying liking and interest. Nonverbal immediacy behaviors include proxemics, distance, touch, gaze, facial expressions, and gestures (Andersen, Andersen, & Jensen, 1979). For this experiment, physical and psychological distance were manipulated through instructions given to confederates. That is, the physical distance was manipulated by confederates leaning farther away or closer to the screen of their computer, as well as waving, smiling, and looking at the camera for high immediacy. In the low immediacy conditions, confederates looked at their cell phones three times during the interaction and Googled something one time during the interaction. Psychological closeness was manipulated by confederates' paying attention to the participant solely, or by dividing their attention between the participant and the confederate's cell phone. Confederates were instructed to smile and

engage in more eye contact in the high immediacy condition. The nonverbal immediacy manipulation was verified by coders watching the muted videos of interactions, with 20% of the data coded by two observers who had an inter-coder reliability of .943 based on the intraclass correlation. Seven scales were used to rate nonverbal immediacy: smiling, leaning in, animated behavior, gaze, nonverbal interest, nonverbal involvement, and cell phone usage during the 3-minute interaction. The inter-item reliability for these items was .959 based on Cronbach’s alpha. This shows extremely high agreement between coders for the level of immediacy conveyed by the confederates.

Measures

Participants completed measures at two different points in time. First, after viewing the profile of the confederate (pre-interaction), and second, after interacting with the confederate on Zoom (post-interaction). The following table presents the reliability coefficients for all self-reported measures:

Variables Measured	# of items	Cronbach’s Alpha
Pre-Interaction Similarity	8	.929
Pre-Interaction Social Attraction	5	.891
Pre-Interaction Potential Friendship	8	.906
Pre-Interaction Initial Positive Expectations	2	.817
Post Interaction Similarity	8	.962
Post Interaction Social Attraction	5	.966
Post Interaction Potential Friendship	8	.969
Post Interaction Positive Expectancy Violation	2	.921

Table 2: Cronbach Alpha of Measured Variables

Social Attraction

Social attraction was measured both pre-and post-interaction with an 8-item scale. Five of the items were from the original social attraction scale developed by McCroskey and McCain (1974) and included questions such as: 1) He/She would be pleasant to be with and 2) He/She would be pleasant to be with. Furthermore, for the context of friendship formation three additional items were added : 1) He/she seems like a likable person; 2) I think sh/he probably has a good personality; and 3) I will probably like this person.

Perceived Similarities Measurement

Similarity was measured on a one to seven Likert-type scale using the attitude homophily scale developed by McCroskey et al. (2004). Six items were used from this scale including questions such as: 1) This person thinks like me; 2) This person has a lot in common with me; and 3) This person shares my values. One more item was added directly asking about similarity in the following format: This person is similar to me.

Perceived Friendship Potential

During both pre-interaction and post-interaction surveys, participants answered several questions to see if they perceived the student they interacted with as a potential friend. This seven item scale was adapted from McCroskey et al. (2004). Some of the questions were: 1) I could become close friends with her/him; 2) He/She just would fit into my circle of friends; and 3) I want to establish a personal relationship with this person. One of the questions was reworded substituting “hang out” instead of “socializing: 4) I would like to hang out with him/her in the future. To make the potential

friend scale better fit the college student and current time context three questions were added: 1) I would like to meet up with this person at a party; 2) I would like to keep in touch with this person after this study; 3) I want to get to know him/her better.

Positive Expectations and Positive Expectancy Violations

Positive expectations were measured by two questions before and after the interaction. Initial positive expectations were measured after students looked at the confederates profiles with two questions: “I expect her/him to be friendly during our interaction” and “I expect this will be a pleasant interaction.” After the interaction, the extent to which the confederate violated expectations was measured with two items: “She/he was more friendly than I expected” and “The interaction was more pleasant than I expected.”

Summary

In sum, an experimental design was implemented such that nonverbal immediacy and similarity were manipulated by eight confederates who enacted the elements of these variables to display high or low levels of nonverbal immediacy and similarity. The two cultural groups were the U.S. nationals and M.E. nationals, perception of whom was recorded before and after the interaction with the same-sex confederates. A total of 112 U.S. college students participated. The manipulations were deemed successful and all of the measured variables had high inter-item reliability.

Chapter Three: Results

A number of statistical tests were conducted to test the hypotheses and research questions. First, the pre-interaction perceptions were compared to determine if there were differences in those perceptions based on whether the confederate was from the Middle East or the U.S. To test the hypotheses involving social attraction and potential friendship as a function of how the confederate used nonverbal immediacy and enacted (dis)similarity, time was included as a within-subjects factor as described below. The goal was to see if there were changes in perceptions of the confederate from pre-interaction to post-interaction based on the confederate's use of nonverbal immediacy and enacted similarity. For the hypotheses and research questions involving expectancies, time was not included as a factor. Instead, separate analyses were conducted-- one for the pre-interaction expectations based on the profiles, and another for the post-interaction measures that gauged how much the interaction positively or negatively deviated from expectations. When testing hypotheses, interaction effects were examined first, followed by main effects, given that interaction effects could override the main effects and/or affect how the main effects should be interpreted.

Pre-Interaction Comparisons

Hypothesis 1 predicted that when evaluating profiles of their future interaction partners, U.S. students would perceive more (a) similarity, (b) social attraction, (c) potential viable friendship and (d) positive expectations for interaction with fellow U.S. students than with international students from the Middle East.

To test how the participants perceived the profiles of fellow U.S. students compared to international students from the Middle East, a Multivariate Analysis of Variance (MANOVA) was conducted. An initial MANOVA was run to see if age, international travel, and biological sex needed to be treated as control variables. Age and travel experience were not significant and therefore were excluded from the final model. Sex was significant and therefore was included. The final model, therefore, included culture (M.E. vs U.S. confederates) and sex as independent variables and (a) similarity, (b) social attraction, (c) potential viable friendship and (d) positive expectations as a composite dependent measure. Bartlett's test of sphericity ($df= 9$) = 168.4, $p < .001$, confirmed that these dependent measures were significantly intercorrelated, and therefore appropriate to treat as a composite criterion variable. The model produced a significant multivariate interaction effect for sex and culture, $F(4,105) = 4.42$, $p < .001$. Wilks' $\Lambda = .86$, as well as significant multivariate main effects for culture, $F(4,105) = 2.77$, $p < .05$, Wilks' $\Lambda = .91$, and sex, $F(4,105) = 4.66$, $p < .01$, Wilks' $\Lambda = .85$. These significant effects were further examined by looking at the accompanying univariate analyses, as reported next.

Sex by Culture Interaction Effect

Despite the multivariate interaction effect being significant, none of the univariate analyses reached a significance level of $p < .05$. However, three of the dependent variables (social attraction, potential friendship, positive expectancies) were significant at $p < .10$, and therefore likely contributed to the multivariate effect. The cell means for the interaction are as follows:

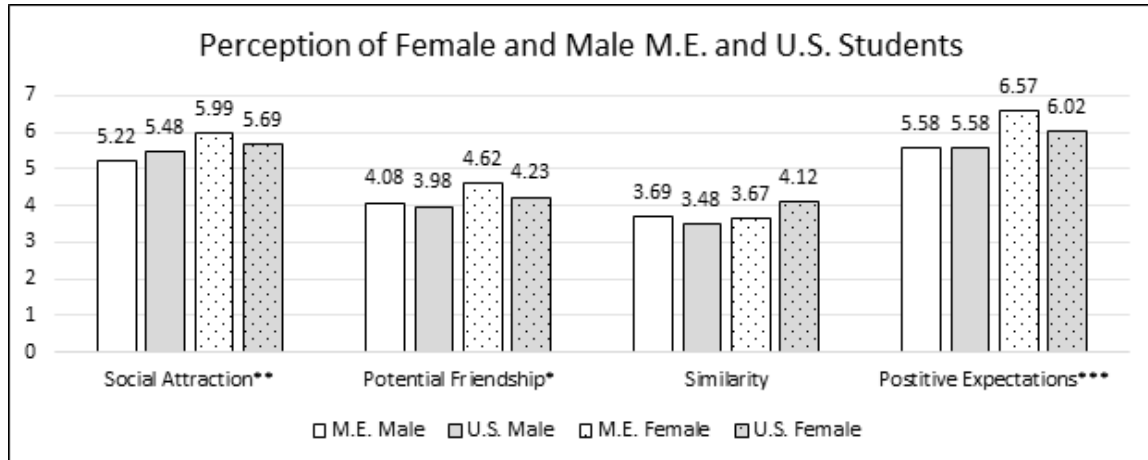


Figure 2: Comparison of male and female M.E. and U.S. students across four DVs
Significance levels at: * $p < .05$ ** $p < .01$ *** $p < .001$

Based on the pattern shown in the graph, the three dependent measures that were marginally significant in the univariate analyses depict that Middle Eastern women were perceived the most positively. To further probe the interaction, sets of follow up t-tests were conducted to look at the comparisons between: (a) M.E. women versus M.E. men, (b) M.E. women versus U.S. men, (c) M.E. women versus U.S. women, (d) M.E. women versus U.S. men, (e) U.S. women versus M.E. men, and (f) M.E. men versus U.S. men. The perceptions of M.E. men and M.E. women showed a significant difference for social attraction $t(59) = 3.30, p < .01, n^2 = .14$, friendship potential $t(59) = 2.01, p < .05, n^2 = .06$, and positive expectations $t(59) = 4.56, p < .001, n^2 = .24$. M.E. women ($M=5.99, SD=.98$) were perceived as more socially attractive and as having more friendship potential ($M=4.62, SD=.99$) than M.E. men social attraction ($M=5.22, SD=.75$) and potential friendship ($M=4.08, SD=1.03$) within same-sex dyads. U.S. women also expected their interactions with a M.E. woman ($M=6.57, SD=.59$) would be more

positive than men expected their interaction with a M.E. man ($M=5.58$, $SD=.92$) would be.

For the set of comparisons between U.S. males versus M.E. females, there were significant differences for friendship potential $t(54) = 2.20$, $p < .05$, $n^2 = .07$, and positive expectations $t(54) = 4.25$, $p < .001$, $n^2 = .21$. M.E. women were perceived higher in friendship potential ($M=4.62$, $SD=.99$) and were expected to be more pleasant ($M=5.58$, $SD=.92$) to interact with than U.S. men in regards to friendship potential ($M=3.98$, $SD=1.07$) and positive expectations ($M=5.58$, $SD=1.16$) within same-sex dyads. The set of t -tests comparing M.E. women and U.S. women produced significant differences in: perceived similarity $t(67) = 2.14$, $p < .05$, $n^2 = .06$, with U.S. females ($M=4.12$, $SD=.92$) perceived as more similar than M.E. females ($M=3.67$, $SD=.83$); and positive expectations $t(67) = -3.27$, $p < .005$, $n^2 = .14$, with more positive interactions being expected with M.E. females than with U.S. females. Thus, female participants from the U.S. viewed themselves as more similar to U.S. women than M.E. women, yet expected that their interaction would be more positive with a M.E. woman. Comparing M.E. men with U.S. women, there was a significant difference only for social attraction $t(54) = 2.22$, $p < .05$, $n^2 = .07$, with U.S. women rated as more socially attractive than M.E. men within same-sex dyads. For the set of t -tests comparing U.S. men and U.S. women, as well as the set comparing U.S. men and M.E. men, no significant differences emerged.

These follow-up tests showed that when there were significant differences, M.E. women tended to be rated higher than other participants with the exception of similarity.

Female participants from the U.S. also expected U.S. women to be more socially attractive than male participants from the U.S. expected U.S. men to be. Thus, H1 was not supported. Counter to the prediction that U.S. students would be rated more favorably than M.E. students based on their profiles, M.E. women were actually rated the most favorably overall.

Main Effect for Culture

Next, to better understand the multivariate effect for culture, the accompanying univariate analyses for social attractiveness, potential friendship, similarity, and positive expectations were examined. There were no significant univariate effects for culture on any of these dependent variables. Thus, although there was a multivariate effect of culture on the composite dependent measure, none of the univariates were significant and the interaction effect between sex and culture overrode any main effect culture had. Main effect means for culture are shown in Figure 3.

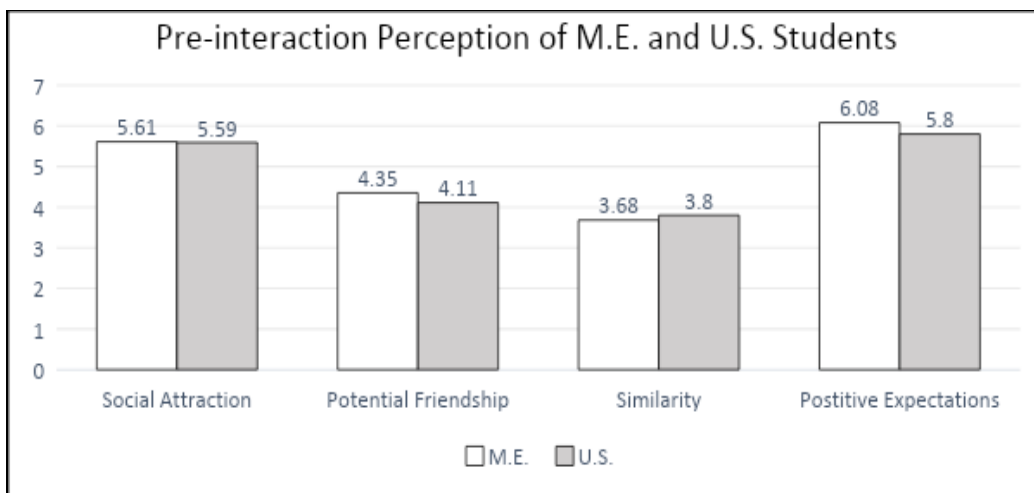


Figure 3: Perception of M.E. and U.S. students across four DVs

Main Effect for Sex

The multivariate main effect for sex was examined more closely by looking at the accompanying univariate analyses. There was a significant difference in social attraction $F(1,108) = 8.47, p < .005$ and positive expectations $F(1,108) = 18.73, p < .001$, such that women were initially rated more positively than men by their future same-sex interactional partners (see Figure 4). This finding is consistent with the results obtained in the t -tests probing the interaction effect.

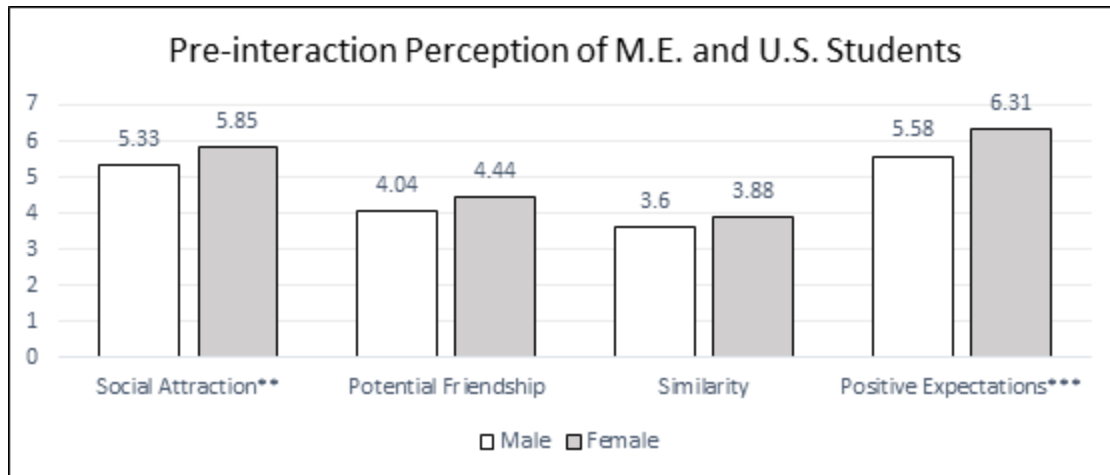


Figure 4: Main effect for Sex

Intracultural Interactions

Effects of Similarity and Nonverbal Immediacy on Social Attraction and Friendship

Potential in Intracultural Interaction

Hypotheses 2, 6 and 10 explore the effects of enacted similarity and nonverbal immediacy on the interactions between U.S. students. Therefore, these hypotheses focus on how these variables affect intracultural interaction. To test these hypotheses, a mixed model MANOVA was conducted with similarity (high, low) and nonverbal immediacy

(high, low) as between-subjects independent variables, and time (pre- vs. post-interaction) as a within-subjects independent variable. The dependent measures were social attraction and potential friendship. Bartlett's test of Sphericity was significant for both between and within subject portions of the analysis. Bartlett's test of Sphericity was significant for between subjects, $Bartlett's = 26.58, p < .001$, and within subjects, $Bartlett's = 17.29, p < .001$, tests. Thus, it was appropriate to treat these dependent variables as a composite.

First, the interaction effect between similarity and immediacy was explored to test H10. This interaction was not significant $F(2, 46) = .45, p > .05$, Wilks' $\Lambda = .98$, nor was the three-way interaction between immediacy, similarity and time, $F(2, 46) = .15, p > .05$, Wilks' $\Lambda = .99$. Thus, H10 was not supported.

H2 predicted that within intracultural interactions, U.S. students exposed to a U.S. student enacting similarity would experience a greater increase in social attraction and potential for viable friendship compared to U.S. students exposed to a U.S. student enacting dissimilarity. This hypothesis was tested by examining the interaction between similarity and time on social attraction and potential friendships. The multivariate interaction between these variables was not significant $F(2, 46) = 2.93, p > .05$, Wilks' $\Lambda = .89$. However, the accompanying univariate analyses showed that the similarity by time interaction was significant for viable friendship $F(1, 47) = 4.76, p < .05$, partial $\eta^2 = .092$, as seen in Figure 5. Thus, the multivariate model and one out of the two univariates failed to support H2. Thus, H2 received only limited support, given that the expected

effect only emerged for potential friendship. As shown in Figure 5, individuals' perceptions of potential friendship increased slightly if they were in the high similarity condition, while decreasing considerably if in the low similarity condition.

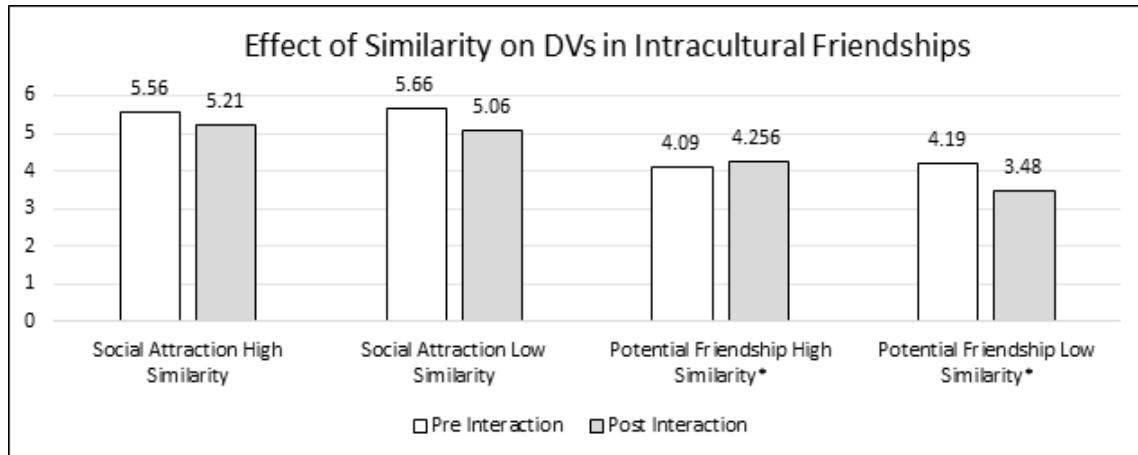


Figure 5: Similarity by time interaction between intracultural dyads

H6 predicted that within intracultural interactions, U.S. students exposed to a U.S. student enacting high nonverbal immediacy would experience a greater increase in (a) social attraction and (b) potential for viable friendship than U.S. students exposed to a U.S. student enacting low nonverbal immediacy. There was a significant multivariate effect for the nonverbal immediacy by time interaction, $F(2, 46) = 24.28, p < .001$, Wilks' $\Lambda = .49$. Accompanying univariates showed that the interaction effect held for both dependent measures: social attraction, $F(1, 47) = 47.44, p < .001$, partial $n^2 = .502$, and potential friendship, $F(1, 47) = 25.74, p < .001$, partial $n^2 = .354$, (See pre- and post-interaction means for both variables in Figure 6). In support of H6, people's ratings of their same-sex interactional partner (aka the confederate) on social attraction and friendship potential increased if they were in the high nonverbal immediacy condition,

and decreased if they were in the low nonverbal immediacy condition. Therefore, H6 was supported.

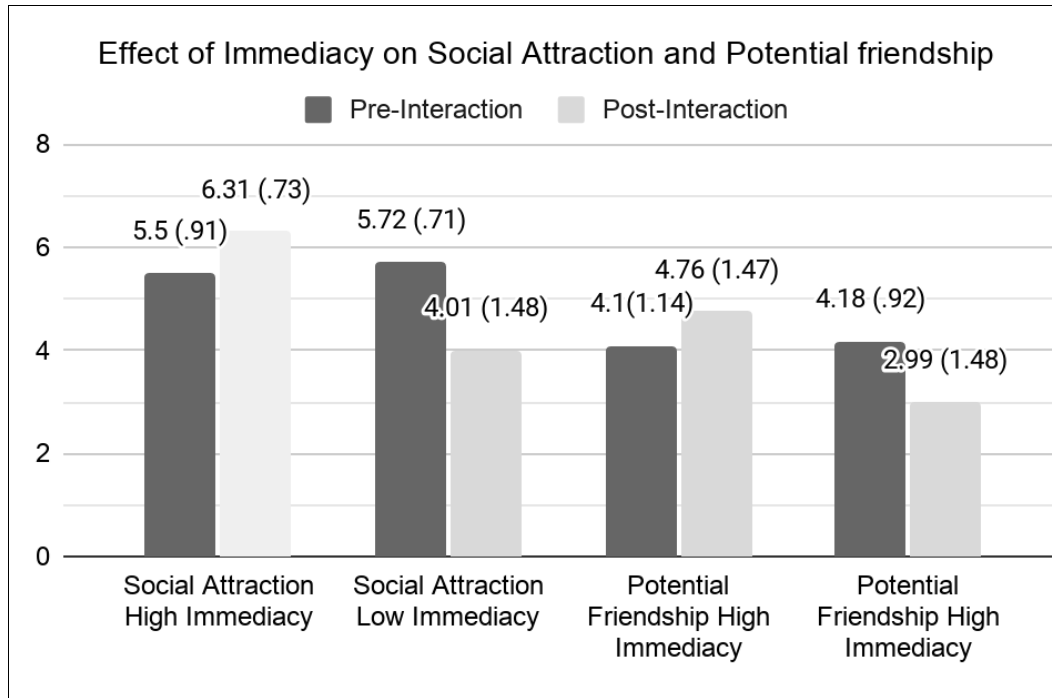


Figure 6: Immediacy by Time Interaction between intracultural dyads SD in ()

Effects of Similarity and Nonverbal Immediacy on the Degree to which Interactions were More Pleasant than Expected in Intracultural Interactions

Hypothesis 4, 8 and 12 explored the effects of similarity and nonverbal immediacy on the degree to which expectations were positively violated after interacting with someone within an intracultural (U.S. student with U.S. student) dyad. H4 focused on the main effect of similarity. H8 looked at the main effect for nonverbal immediacy. H12 posited that U.S. students exposed to a U.S. student enacting nonverbal immediacy and similarity would report that their interaction was the most pleasant compared to

expectations, whereas U.S. students exposed to a U.S. student enacting dissimilarity and low nonverbal immediacy would report the least pleasantness compared to expectations. The interaction effect between similarity and nonverbal immediacy on positive expectations was explored to test H12. This interaction was not significant $F(1, 47) = .08, p > .05$. Therefore, H12, which predicted that people would report that their expectations were violated the most positively in the high similarity and high nonverbal immediacy condition, was not supported. Instead, the data suggest that regardless of level of similarity, people reported that their expectations were violated more positively when the confederate engaged in a high level of nonverbal immediacy, as demonstrated by the main effect of nonverbal immediacy on positive expectations, $F(1, 47) = 46.51, p < .001$, partial $\eta^2 = .50$. This main effect provides support for H8. The main effect for similarity, however, was not significant (see Figure 7 for means). Therefore, H4 was not supported. Only nonverbal immediacy predicted the extent that participants would report that the interaction was more positive than expected.

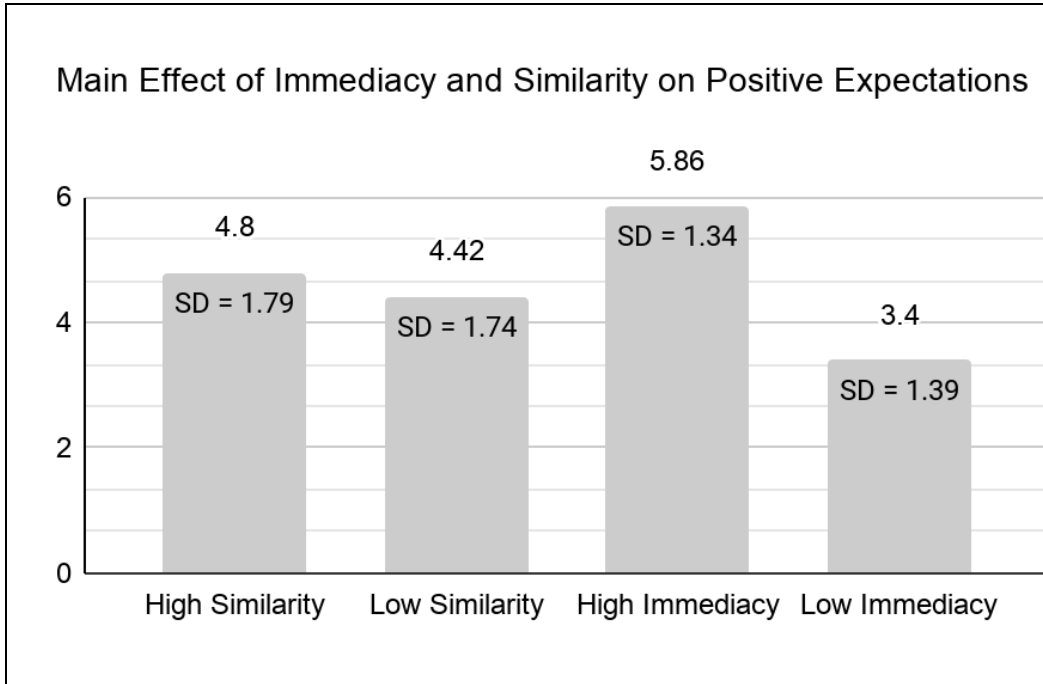


Figure 7: Main Effect Means for Positive Expectancy Violation

Now that we have looked at the effects of similarity and nonverbal immediacy on intracultural friendships, we will look at the effect they have on intercultural interactions between U.S. and M.E. students.

Intercultural Interactions

Effects of Similarity and Nonverbal Immediacy on Social Attraction and Potential Friendship in Intercultural Interactions

Hypotheses 3, 7 and 11 explore the effects of enacted similarity and nonverbal immediacy on the interactions between U.S. students and Middle Eastern students. Therefore, these hypotheses focus on how these variables affect intercultural interaction. To test these hypotheses, a mixed model MANOVA was conducted. Similarity (high, low) and nonverbal immediacy (high, low) were the between-subjects independent

variables, and time (pre- vs. post-interaction) was the within-subjects independent variable. The dependent measures were social attraction and potential friendship. First, the interaction effect between similarity, immediacy, and time was explored to test H11, which predicted that social attraction and potential friendship would show the largest increase in the high similarity, high immediacy condition. The three-way interaction between immediacy, similarity, and time was not significant, $F(2, 56) = 1, p > .05$, Wilks' $\Lambda = .9$. H11, therefore, was not supported.

H3 stated that U.S. students interacting with a Middle Eastern student who was enacting similarity would experience a greater increase in social attraction and potential for viable friendship compared to U.S. students exposed to a Middle Eastern student enacting dissimilarity. This was tested by looking at the similarity by time interaction effect on the two dependent measures as a composite and then as univariates. The multivariate effect of similarity by time was significant, $F(2, 56) = 15.62, p < .001$ Wilks' $\Lambda = .64$. Looking at the univariate effects, the interaction between similarity and time was significant across both dependent measures: social attraction, $F(1, 57) = 9.38, p < .005$, partial $n^2 = .141$, and potential friendship, $F(1, 57) = 30.37, p < .001$, partial $n^2 = .348$. As shown in Figure 8, social attraction and potential friendship increased when participants were in the high similarity condition and decreased if they were in the low similarity condition. Thus, H3 was fully supported.

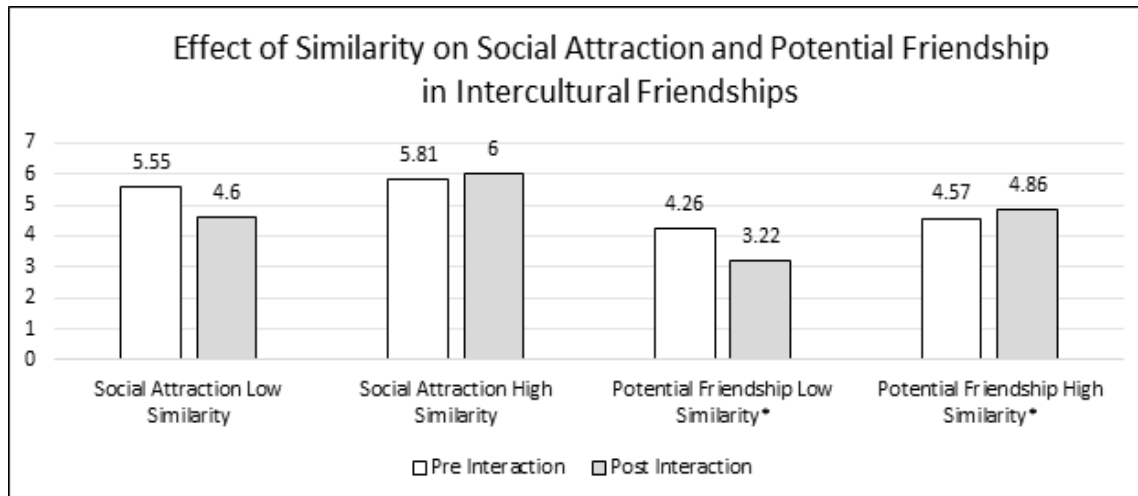


Figure 8: Similarity by Time Interaction in Intercultural Dyads

H7 predicted that within intercultural interactions, U.S. students who were exposed to a M.E. student enacting high nonverbal immediacy would experience a greater increase in (a) social attraction and (b) potential for viable friendship compared to U.S. students exposed to a U.S. student enacting low nonverbal immediacy. There was a significant multivariate nonverbal immediacy by time interaction effect: Wilks' $\Lambda = .73$, $F(2, 56) = 15.62$, $p < .001$. Accompanying univariates showed that the interaction effect held for both dependent measures: social attraction, $F(1, 57) = 12$, $p < .005$, $n^2 = .174$, and potential friendship, $F(1, 57) = 20.71$, $p < .005$, $n^2 = .267$. As shown in Figure 9, attraction and potential friendship increased when participants were in the high immediacy condition, and decreased when in the low immediacy condition. Therefore, H7 was supported.

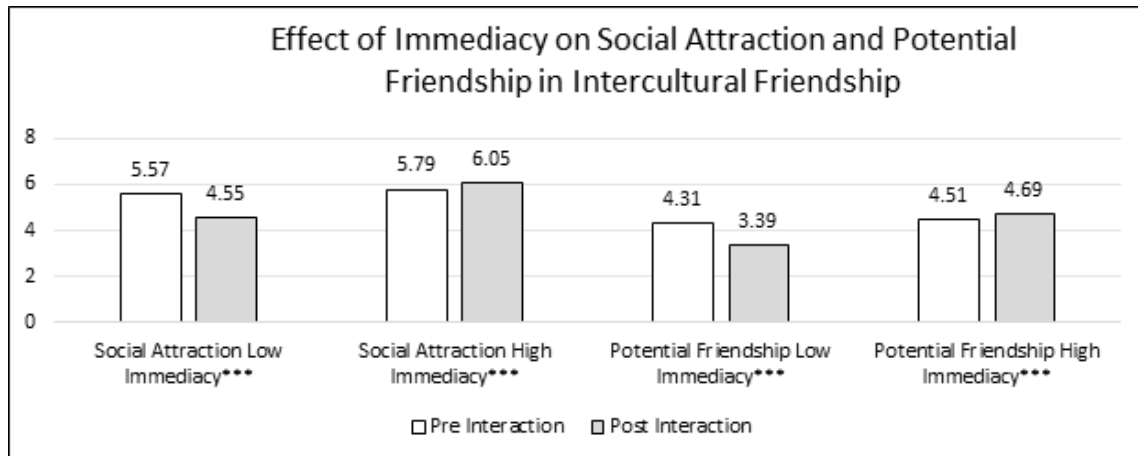


Figure 9: Immediacy by time interaction in intercultural dyads

Effects of Similarity and Nonverbal Immediacy on the Degree to which Interactions were More Pleasant than Expected

Hypothesis 5, 9 and 13 explored the effects of similarity and nonverbal immediacy on positive valence of expectancy violations after the interaction within intercultural dyads. H5 focused on the effects of similarity. H9 looked at nonverbal immediacy. H13 posited that U.S. students exposed to a Middle Eastern student enacting nonverbal immediacy and similarity would report that their interactions were the most pleasant compared to expectations, whereas the U.S. students meeting M.E. confederates enacting dissimilarity and low nonverbal immediacy would report the least pleasant interaction compared to expectations. A MANOVA was conducted to test these hypotheses. Level of positive expectancy violation was the dependent measure, with similarity and nonverbal immediacy as independent variables. Time was not included in this model since the dependent measure was the overall assessment of how much the interaction violated their expectations in a positive versus negative way.

The interaction effect between similarity and nonverbal immediacy on degree of positive expectancy violation was explored to test H13. This interaction was not significant $F(1, 57) = .63, p > .05$. Therefore, H13, which predicted that people would report the most positive expectancy violations in the high similarity and high nonverbal immediacy condition, was not supported.

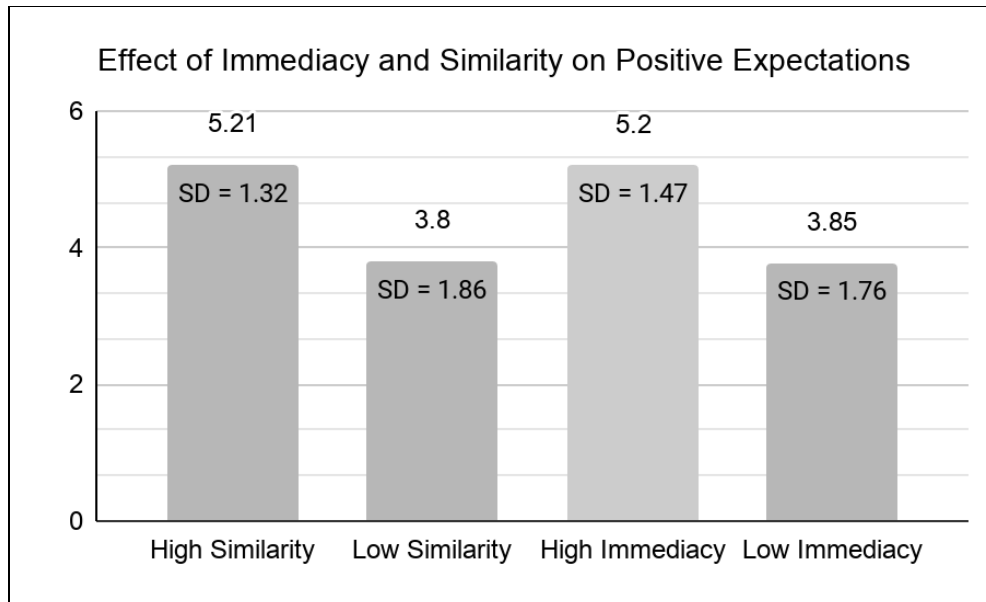


Figure 10: Nonverbal Immediacy and Similarity effect on Expectations

Looking at the main effects, both similarity, $F(1, 57) = 17, p < .001$, partial $n^2 = .23$, and nonverbal immediacy, $F(1, 57) = 15.88, p < .001, n^2 = .218$ had significant effects on positive expectancy violation (see Figure 10 for means). Therefore, H5 and H9 were supported, as similarity and immediacy did make a significant difference in predicting the degree to which participants believed their expectations were positively violated.

Specifically, those in the high similarity condition reported that their expectations were violated more positively than those in the low similarity condition, and those in the high

nonverbal immediacy condition reported that their expectations were violated more positively than those in the low nonverbal immediacy condition.

RQ1: Interactions with Culture in Social Attraction and Potential Friendship

RQ1 explored whether culture interacted with similarity and nonverbal immediacy to predict changes in (a) social attraction and (b) potential for viable friendship. To test this research question, a mixed model MANOVA was conducted with culture (Middle East vs. United States confederate), similarity (high, low), and nonverbal immediacy (high, low) as between-subjects variables and time (pre- versus post-interaction) as a within-subjects variables. As in the previous analyses, social attraction and friendship potential were the dependent measures. Sex was added as a potential covariate or moderating variable in all models. Prior to conducting this analysis, a model was run to check for significant interactions between the variables of interest. Significant interaction effects were then retained in the final model, while non-significant interaction effects were excluded.

A three-way interaction was found between culture, nonverbal immediacy, and time, $F(2, 100) = 3.31, p < .05$, partial $n^2 = .062$, with accompanying univariate effects significant for social attraction, $F(1, 101) = 6.58, p < .05$, partial $n^2 = .061$, but not for potential friendship, $F(1, 101) = 3.16, p > .05$.

Nonverbal Immediacy by Culture by Time Interaction Effect on Social Attraction			
		Middle Eastern	United States
High Immediacy	Pre Interaction	5.79 (0.92)	5.50 (0.91)**
	Post-Interaction	6.03 (1.27)	6.31 (0.73)**
Low Immediacy	Pre-Interaction	5.59 (1.03)**	5.72 (0.71)**
	Post Interaction	4.65 (1.82)**	4.01 (1.48)**

Table 3: Nonverbal Immediacy x Time x Culture a mean and standard deviation for social attraction **significant $p < .05$

The interaction was probed by conducting paired t -tests comparing the pre- and post-interaction measures of social attraction within each of the immediacy by culture cells shown in Table 3. There were significant differences between the pre- and post-interaction measures of social attraction for the low immediacy condition with Middle Eastern confederates, $t(30) = -2.97, p < .01, n^2 = .23$; the high immediacy condition with U.S. confederates, $t(24) = 4.46, p < .001, n^2 = 0.45$; and the low immediacy condition with U.S. confederates, $t(25) = -5.6, p < .001, n^2 = 0.57$. There was not, however, a significant difference for the pre- and post-interaction measure of social attraction for the high immediacy condition with Middle Eastern confederates. Thus, this interaction showed that for both intra- and intercultural interactions, low immediacy decreased social attraction, but high immediacy only increased social attraction for the intracultural dyads. Another difference reflected in the interaction is that in the low

immediacy condition, the decrease in social attractiveness was more pronounced for intracultural interaction with a student from the U.S. than for intercultural interaction with a student from the Middle East.

RQ2: Interactions with Culture in the degree to which Interactions were More Pleasant than Expected

RQ2 explored whether culture interacted with enacted similarity and enacted nonverbal immediacy to predict the degree to which the interaction was more or less pleasant than expected. There was a three-way interaction between culture, nonverbal immediacy, and sex, $F(1, 102) = 3.6, p < .05, \text{partial } n^2 = .067$. Another three-way interaction was found between culture, similarity, and sex, $F(1, 101) = 3.13, p < .05, \text{partial } n^2 = .06$. No other interactions were found, as the culture by similarity by immediacy interaction was non-significant.

Interaction Effect on Positive Expectancy Violations			
		Low Immediacy	High Immediacy
Male	Middle East	3.73 (1.63)	5.04 (1.2)
	United States	4.20 (0.79)	5.33 (1.2)
Female	Middle East	3.93 (1.86)	5.32 (1.67)
	United States	2.91 (1.46)**	6.16 (0.96)**

Table 4: Immediacy, Culture and positive expectations means, standard deviations

** $p < .05$

To probe the interaction between immediacy condition, sex, and culture, a series of *t*-tests was calculated. These *t*-tests were used to determine if there were differences based on whether the confederate was from the Middle East or the United States within each of the four cells shown in Table 4 (e.g., Male confederates in the low immediacy condition, female confederates in the high immediacy condition). There were no significant differences within any of these cells. Instead, based on the pattern of the means, the significant interaction appears to be at least partially attributable to the especially large difference in how female confederates from the U.S. were judged to violate expectations depending on whether they were in the low versus high immediacy condition. In other words, female confederates from the U.S. were judged as violating expectancies the most positively of all the groups when engaging in high immediacy. Female confederates from the U.S. were also judged as violating expectations the most negatively of all the groups when engaging in low immediacy.

To provide statistical evidence of this, two contrasts were conducted. The first compared the extent to which female confederates from the U.S. positively violated expectations when in the high immediacy condition (assigned a coefficient of 3), versus the extent to which female confederates from the M.E., male confederates from the U.S., and male confederates from the M.E. (all assigned coefficients of -1) were rated as violating expectations when in the high immediacy condition. The contrast confirmed what the pattern of means suggested-- women from the U.S. were judged to violate expectations the most positively of the four groups when increasing immediacy, $t(51) = 2.37, p < .05$,

$n^2 = .10$. The same contrast was conducted for low nonverbal immediacy. As expected, the U.S. women were judged to violate expectations the most negatively of the four groups when decreasing immediacy, $t(53) = -2.23, p < .05, n^2 = .09$.

To probe the interaction between culture, similarity and sex, a series of t -tests was calculated to determine if there were differences based on whether the confederate was from the Middle East or the United States within each of the four cells shown in Table 5 (e.g., Male confederates in the low similarity condition, female confederates in the high similarity condition). There were no significant differences within any of these cells.

Interaction Effect on Positive Expectancy Violations			
		Low Similarity	High Similarity
Male	Middle East	4.25 (1.9)	4.63 (1.11)
	United States	4.45 (1.14)	5.06 (1.1)
Female	Middle East	3.5 (1.81)**	5.58 (1.34)**
	United States	4.41 (2.07)	4.66 (2.1)

Table 5: Similarity, Culture and positive expectations means, standard deviations ** $p < .05$

Therefore, the interaction was also probed by determining where there were significant differences based on whether participants were in the high versus low similarity condition within conditions defined by culture and sex. Specifically, t -tests were run to compare the low and high similarity condition for interactions with male M.E. confederates, male U.S. confederates, female M.E. confederates, and female U.S.

confederates. Only the *t*-test for M.E. women was significant as shown in Table 5. This *t*-test showed that M.E. women in the similarity condition violated expectations more positively than did M.E. women in the dissimilarity condition, $t(35) = 3.98, p < .001, n^2 = .31$. Thus, this interaction suggests that similarity only played a role in shaping how much confederates violated expectations when the confederate was a Middle Eastern woman.

Summary

Overall, the hypotheses regarding main effects for nonverbal immediacy were supported, while the effects of similarity differed in intracultural interactions compared to intercultural interactions as similarity did not play a significant difference in social attraction in same culture dyads. The table below summarizes the results:

H#	Context	Prediction	Result
H1	Pre-interaction	Culture(M.E./U.S.) → (a) perceived attraction, (b) similarity, (c) potential for friendship, (d) positive expectations	Not supported (significant but wrong directions, M.E. women rated most positively)
H2	Intracultural	Similarity → (a) social attraction (n.s.) and (b) potential friendship ($p < .05$)	Partially supported (potential friendship $p < .05$)
H3	Intercultural	Similarity → (a) social attraction) and (b) potential friendship	Supported
H4	Intracultural	Similarity → positive expectations (n.s.)	Not Supported
H5	Intercultural	Similarity → positive expectations	Supported
H6	Intracultural	Nonverbal immediacy → (a) social attraction and (b) potential friendship	Supported

H7	Intercultural	Nonverbal immediacy → (a) social attraction and (b) potential friendship	Supported
H8	Intracultural	Nonverbal immediacy → positive expectations	Supported
H9	Intercultural	Nonverbal immediacy → positive expectations	Supported
H10	Intracultural	Interaction between immediacy, similarity and time on social attraction and potential friendship	Not supported
H11	Intercultural	Interaction between immediacy, similarity and time on social attraction and potential friendship	Not supported
H12	Intracultural	Interaction between immediacy, similarity on positive expectations	Not supported
H13	Intercultural	Interaction between immediacy, similarity on positive expectations	Not supported

Table 6: Summary of hypothesis results

The research questions included comparisons between M.E. and U.S. confederates to better determine the role that culture played in predicting changes in social attraction, friendship potential, and positive expectancy violations. The data revealed the following findings. First, there was a three-way interaction between culture, nonverbal immediacy, and time. This interaction showed that both M.E. and U.S. confederates were rated as less socially attractive when they engaged in low nonverbal immediacy, but only U.S. confederates received a bump in their social attractiveness ratings when they used high levels of nonverbal immediacy. Furthermore, the decrease in ratings of social attractiveness was more pronounced for U.S. confederates than M.E. confederates.

Second, a three-way interaction emerged for culture, nonverbal immediacy condition, and sex on how positively confederates violated expectations. This interaction was attributable to U.S. women being judged the most harshly if they engaged in low levels of nonverbal immediacy (i.e., they were seen as violating expectations especially negatively compared to other groups) and the most favorably if they engage in high levels of nonverbal immediacy (i.e., they were seen as violating expectations especially positively compared to other groups). These findings, along with those related to the hypotheses, will be discussed in more detail in the next chapter.

Chapter Four: Discussion

This dissertation set out to test the effects of perceived similarity and nonverbal immediacy on social attraction, potential friendship, and positive expectations in the context of first-time interactions between college students from the same culture compared to intercultural interactions with international students from the Middle East. Overall, the results challenge the literature supporting the similarity-attraction paradigm (Montoya & Horton, 2013). This paradigm suggests that similarity should have a strong impact on social attraction in the context of same-sex, same-culture, first-time interactions. However, data from this dissertation suggest that similarity only had limited effects within intracultural interactions between U.S. participants and U.S. confederates. Similarity was a more consistent predictor of positive outcomes in intercultural interactions between U.S. participants and M.E. confederates. By contrast, the effect of nonverbal immediacy, as suggested by a large body of literature (Burgoon et al., 2011), had larger and more consistent effects on positive outcomes in both intracultural and intercultural first-time interactions. This chapter will first focus on understanding and interpreting this finding, as well as the other findings in this dissertation, after which theoretical and practical implications will be discussed. The chapter will end by outlining

the general limitations of the study as well as future directions for research on intercultural friendship.

Pre-Interaction Perceptions

One of the main ideas guiding this dissertation was that U.S. students have different perceptions of fellow U.S. students than they have of international students, and in particular, students from the Middle East. To that end, H1 predicted that M.E. students would initially be perceived less favorably than U.S. students. However, this hypothesis was not supported. Instead, prior to interacting, M.E. women were generally perceived as the most socially attractive and as having the most potential for friendship. Participants also tended to perceive that their interactions with M.E. women would be the most pleasant. Interestingly, U.S. women perceived M.E. women would be more dissimilar to themselves than would U.S. women, but still believed their interaction with a M.E. woman would be more positive than their interaction with a U.S. woman. These findings are inconsistent with previous research showing that, in the beginning stages of friendship formation, college students choose friends of similar cultural background because having similar views, religion, upbringing, interests and humor creates a sense of familiarity and makes it easier to relate to and communicate with each (Vaccarino & Hawke, 2011).

So, why might Middle Eastern female confederates be viewed more positively than U.S. female confederates by U.S. female college students? The literature suggests at least two possible explanations, both of which need to be tested in future research. First, U.S. female students might sympathize with and wish to become friends with a female M.E. student as part of the saviour complex. Past research shows that Middle Eastern women in the U.S. media are portrayed as victims, passive, veiled, and as political figures (Qutub, 2014; Wilkins, 1995). Western men generally view M.E. women as subservient, oppressed figures and some Western women follow the same line of thought, viewing M.E. women as children who do not have a lot of autonomy (Wilkins, 1995). Furthermore, M.E. female confederates in this dissertation wore hijabs, and in the U.S. the image of women in a hijab often elicits an emotional reaction of pity and outrage (Alsultany, 2012). Another variable that could have influences the difference in the judgement of M.E. male and female confederates profiles are that while the female confederates wore hijabs, male confederates did not wear any head covering (see Image 1).



Image 1: Middle Eastern Men and Women Profile pictures

Perhaps a more plausible and complementary explanation lies in the lack of accounting for intersectionality and basing the hypothesis on general stereotypes of Middle Easterners found in research rather than considering that Middle Eastern men and women are likely perceived differently. The term intersectionality was originally advanced by Crenshaw (1989) to describe how, for Black women, the intersecting biases associated with racism and sexism create bias that is greater than simply summing those two biases together. The concept, which is now used to more broadly describe the “the mutually constitutive relations among social identities” (Shields, 2008, p. 301), has been used by scholars to study how culture and gender intersect in complex ways to shape identity and stereotypes.

Ghavami and Peplau (2012) examined intersectionality within various groups, including Middle Eastern men and women, by examining college students’ perceptions of different groups. They found that, in line with the idea of intersectionality, “stereotypes of ethnic groups were generally more similar to stereotypes of the men than of the women” (Ghavami & Peplau, 2012, p. 113). In other words, people tend to generalize the

stereotypes associated with men in a particular culture to both men and women, even though when women within a given cultural group are singled out, they are often associated with unique stereotypes based on intersectionality. This would explain why past research suggested that, in general, people from the Middle East are viewed negatively as aggressive. However, Middle Eastern women may be viewed more positively than Middle Eastern men, and, in fact, Ghavami and Peplau (2012) found that the most common stereotype people had of Middle Eastern women was that they were quiet or shy, which is opposite of the aggressive stereotype associated with Middle Eastern men. As a group, Middle Eastern women were also perceived as religious, covered, oppressed, conservative, dark-skinned, submissive, and attractive (Ghavami & Peplau, 2012). Importantly, these stereotype types support the idea that U.S. women might view Middle Eastern women as likable and shy, and also have sympathy for them.

Effects of Similarity

This dissertation also focused on determining how different types of interaction lead to increased or decreased social attraction and friendship potential within intracultural interaction between U.S. student participants and U.S. confederates and intracultural interaction between U.S. student participants and M.E. confederates. Specifically, interaction characterized by shows of similarity and nonverbal immediacy was predicted to increase social attraction and friendship potential, whereas the opposite was predicted for shows of dissimilarity and non-immediacy. Next, the findings for similarity are discussed, followed by a discussion of the findings for nonverbal

immediacy. Similarity and nonverbal immediacy did not interact to produce significant effects.

The data revealed limited effects for similarity in intracultural interaction between U.S. participants and U.S. confederates. For potential friendship viability, participants showed an increase in their belief that the confederate could potentially be a friend when the confederate presented her or himself as similar to them, and a decrease when the confederate acted dissimilar to them. Similarity, however, did not affect social attraction or the degree to which expectations were positively violated.

These non-findings are contrary to the myriad of studies that have supported the similarity effect since Byrne and Nelson (1965) first showed a strong relationship between attraction and similarity (see meta-analysis by Montoya et al., 2008). However, when looking at studies that tested this link in same-sex dyads, some mixed results emerged. For example, Hill and Stull's (1981) study revealed that among same-sex male college roommates, similarity did not play a significant role in predicting attraction, which they attributed to possible differences between perceived and actual similarity.

In the present study, dissimilarity had a much stronger effect during the interaction, compared to the slight effect that similarity had, which is in accordance to the similarity-dissimilarity asymmetry hypothesis (Hoyle, 1993; Singh & Tan, 1992). Not only for social attraction, but also for potential friendship, the drop in the ratings due to dissimilarity was stronger than the slight increase due to similarity.

The association between similarity and social attraction could also have been mediated by how important the participants judged the interpersonal encounter to be to them, as suggested by Singh and Ho (2000). Since the participants in this study believed it was a one-time interaction, where they would not interact with their interaction partner again, the lack of importance associated with the interaction might have affected the results. Furthermore, the relatively short length of the interaction might have also played a role. Other research suggests that actual similarity has less of an effect in short interactions compared to perceived similarity (Montoya et al, 2008).

Despite the limited effects similarity had in intracultural interactions, in intercultural interactions between U.S. participants and M.E. confederates, similarity was a consistent predictor of positive outcomes. Specifically, similarity had main effects such that U.S. students rated Middle Eastern students who enacted similarity as more socially attractive and as having more potential for friendship than Middle Eastern students who enacted dissimilarity. When M.E. confederates enacted similarity rather than dissimilarity, participants also tended to rate the interaction as more positive than expected.

Taken together, these findings beg the question-- why was similarity a more consistent predictor of positive outcomes in the intercultural interactions compared to the intracultural interactions?

Effects of Nonverbal Immediacy

One of the most important findings in this dissertation is that nonverbal immediacy had large and consistent effects on positive outcomes across both intra- and intercultural interaction. Regardless of whether the confederate was from the Middle East or the U.S., when they engaged in high levels of nonverbal immediacy, U.S. participants rated them as more socially attractive, as having more friendship potential, and as engaging in more positive interaction than expected. When confederates engaged in low levels of nonverbal immediacy, potential friendship viability and social attraction decreased, and expectations were more likely to be negatively violated. The effect size for the nonverbal immediacy was also substantial, accounting for nearly half of the variability in the degree to which perceptions of social attractiveness changed from before to after the interaction via Zoom for intracultural interactions and 35 percent of variability in potential friendship. In intercultural interactions, nonverbal immediacy accounted for 17 percent of the variability in social attraction and 27 percent in potential friendship. In contrast in intracultural interactions, the effect size for similarity on potential friendship viability was small, accounting for less than 10 percent of the variance, while in intercultural interaction similarity accounted for 14 percent in social attraction and 35% in potential friendship. Overall then, nonverbal immediacy more strongly affected participant perceptions of confederates than did similarity, both in terms of consistency across measures and in terms of the strength of the effect for social attraction. In regards to positive expectations, nonverbal immediacy played a large role in intracultural interactions accounting for 50% of the variance.

This finding aligns with past research on the importance of nonverbal cues in social attraction (e.g. Babin, 2013; Burgoon et al., 1999; Ray & Floyd, 2006). Some scholars have argued that the link between nonverbal cues signalling affiliation or immediacy and social attraction is at least partial due to evolutionary forces (Ray & Floyd, 2006). The idea here is that people who engaged in warm, immediate nonverbal communication were better able to forge alliances, cooperate with others, and be seen as likeable, which were all essential to survival and to attracting mates. Thus, preferences for nonverbal immediacy likely evolved across cultures.

Just as nonverbal immediacy is generally related to likeability and social attraction, when people engage in low levels of nonverbal immediacy, others tend to have a negative impression of them. As Babin (2013) noted, a lack of immediacy can make someone seem unfriendly and reduce motivation for future interactions. Data from this dissertation echoes these findings by showing that students who interacted with confederates enacting low levels of immediacy not only saw them as less socially attractive after interacting with them in comparison to after reading their profile, but also saw them as less desirable as a potential friend. Importantly, this finding was found in a computer-mediated context, Zoom, where the ability to use more dynamic nonverbal cues may be limited due to sitting in front of a screen. Regardless, confederates who smiled, were animated, and looked at their conversational partner through the screen were rated positively, whereas those who did not smile, looked unanimated, and glanced at their phone were rated negatively. Indeed, the decrease in social attractiveness and potential

friendship viability was larger for confederates enacting low nonverbal immediacy than was the increase in social attractiveness and potential friendship for confederates enacting high immediacy.

The findings on the role of nonverbal immediacy are consistent with and support the large body of literature showing the importance of nonverbal communication in interpersonal interactions, with this research showing that adults rely more on nonverbal than verbal cues when making first impressions (see review by Burgoon et al., 2011). This was the case for the present study given that nonverbal immediacy had a more consistent and stronger effect on perceptions than did similarity. Moreover, these findings add to the list of contexts in which nonverbal immediacy is important. Much of the research on nonverbal immediacy has been conducted in developing or established relationships (Burgoon et al., 2011) and in classrooms (Witt et al., 2004). Researchers have examined nonverbal immediacy across different cultures, finding that some cultures are more nonverbally immediate than others (McCroskey et al., 1996). This dissertation shows that when interacting with a presumed fellow student from either the Middle East or the U.S., U.S. students expect and value a high level of nonverbal immediacy.

Interactions with Culture and Sex

Finally, analyses were conducted to see how culture interacted with the other variables of interest. Biological sex was also included in some of these analyses. There was a three-way interaction between culture, nonverbal immediacy, and time on social attraction. This interaction showed that low immediacy decreased social attraction in

interactions with both U.S. and M.E. confederates, but high immediacy only increased social attraction in intracultural interactions with U.S. confederates. The interactions also reflected that decreases in social attraction due to low nonverbal immediacy were especially pronounced in intracultural interactions. This could be due to the preinteraction high rating on social attraction of Middle Eastern students, and even before meeting the M.E. students, U.S. students already rated them more highly than the U.S. students, therefore there is not much of an increase that is possible from the initial high ratings on social attraction.

There was also a three-way interaction between culture, immediacy, and sex. This interaction revealed that female confederates from the U.S. were judged as violating expectancies the most whether in the high immediacy condition (where their behavior was rated as violating expectancies the most positively) or in the low immediacy condition (where their behavior was rated as violating expectancies the most negatively). Cultural norms and expectations may also be at work here. Perhaps U.S. women expect other U.S. women to smile and be friendly as part of the cultural norm (Carli et al., 1995). When U.S. women interact with a woman from the U.S. who is nonimmediate, this likely violates this norm, leading to an especially harsh judgment. People may have lower expectations for nonverbal immediacy from M.E. women, given that they are often perceived as shy and quiet (Ghavami & Peplau, 2012), and presumably thought to be more reserved in terms of their nonverbal behavior. Men in the U.S. are also stereotypically expected to smile less and show less nonverbal immediacy than women

(Carli et al., 1995), so it makes sense that U.S. women would also be judged more harshly when they fail to engage in nonverbal immediacy than U.S. men (and perhaps men from other cultures as well) would be.

There was an third interaction, this time between culture, similarity, and sex. This interaction showed that similarity only played a significant role in shaping how much confederates violated expectations when the confederate was a Middle Eastern woman. Specifically, U.S. participants reported that M.E. women in the similarity condition violated their expectations in a more positive fashion than did M.E. women in the dissimilarity condition. Similarity did not significantly impact degree of expectancy violation when the confederate was a woman from the U.S. or a man from either the U.S. or the Middle East. This further supports the idea of intersectionality given that it may be the complex intersection between gender and culture that influenced expectancies. As noted previously, U.S. college students hold stereotypes of Middle Eastern women as quiet, religious, and covered (Ghavani & Peplau, 2012). U.S. women may see those characteristics as dissimilar from their personalities such that verbal expressions of similarity may then violate their expectations in a positive way.

Implications

This dissertation's findings have significant practical implications for international students in the U.S. Most of the time, the training or preparation international students receive in their countries centers around language development and verbal communication. Considerable research has suggested that international students

feel nervous and uncertain about the language barrier they encounter in the host country (e.g., Church, 1982; Furnham & Trezise, 1983; Leong & Chou, 1996). As indicated by the results in this dissertation, nonverbal immediacy plays a substantial role in intercultural interactions, but international students are trained to focus on saying the correct thing more than relaxing their body language and smiling. Furthermore, this dissertation shows the detrimental effect engaging in non-immediacy has on social attraction, potential friendship and the degree to which expectations are violated positively in initial encounters. When students encounter culture shock and feel anxious about what they are saying, they might not be as conscious of the nonverbal messages their body is sending to their interaction partner. One of the ways confederates in this dissertation portrayed a lack of nonverbal immediacy was by looking at their phone as if they were checking a message. International students might look down at their phones for various reasons, including to look up a word or an American cultural concept they are unfamiliar with using their phone. This behavior could be perceived to communicate a lack of interest in the conversation, making them less socially attractive and decreasing desirability for future interactions.

For U.S. students, it is important to learn about cultural differences in nonverbal communication as well as how nonverbal immediacy can be affected by worry, anxiety, depression, and a variety of other negative effects that often accompany the culture shock \ international students might experience. U.S. students should understand that a lack of nonverbal immediacy does not always translate into a lack of interest, especially when

interacting with someone from a different culture. Interestingly, in the post interviews, one of the U.S. female students attributed the lack of immediacy displayed by the Middle Eastern confederate she interacted with to shyness rather than to disinterest, which is in line with the stereotypes about Middle Eastern women reviewed earlier.

This dissertation also has theoretical implications. One implication involves the need to revisit the scope of the similarity-attraction paradigm to determine when it applies and when other factors, such as nonverbal immediacy, are more important predictors of attraction. The similarity-attraction hypothesis would predict that white U.S. female students would rate other white female U.S. students as more socially attractive than hijab-wearing international students from the Middle East. U.S. students not only were more socially attracted to females who looked different and were from a different culture than them, but they also expected their interaction to be significantly more positive than it would be with someone who was more similar to them (i.e., another U.S. student). This suggests that similarity is not always the driving force behind social attraction. As noted previously, stereotypes that stress *dissimilarity*-- such as believing that Middle Eastern women are oppressed and shy-- may actually create sympathy and liking rather than decreasing social attraction.

Another theoretical implication revolves around the concept of intersectionality. In this dissertation, some of the findings that emerged were specific to a particular gender and culture rather than cutting across all men and all women or all U.S. students and all Middle Eastern students. This highlights the importance of thinking about gender and

culture as intersecting identities that may play into the stereotypes people have of those within certain groups. Perhaps the contact hypothesis needs to be revisited, taking in consideration intersectionality of groups. When discussing the selection of group members and their interaction, their different types of identities and their intersections need to be considered in future research.

According to the contact hypothesis there were four original conditions proposed by Allport: equal status, common goals, intergroup cooperation, and support of authorities/customs. It could be argued that all participants who were students had equal status, perceived to have a common goal of earning extra credit, had to cooperate and needed to interact with each other, were supported by researchers and were encouraged by their professors to meet these four conditions. In most studies an ethnic group is viewed as a singular group, however as our study demonstrated Middle Eastern men and Middle Eastern women were judged on completely different standards and there were differences in the judgement after interaction that were affected by these differences.

The status of students might be equal, however the U.S. students and international students have different rights and U.S. students have more power and an advantage. U.S. students being in their homeland, speaking English their native language and knowing the norms clearly has more influence and power in the interaction. It might be interesting to replicate this study with the ethnic group being in their native country and the language being auto translated, so there is more equality between the two group members.

Another way this work contributes to theory building is its contribution to literature on thin slicing and first impression formation. There is a vast amount of research on impression formation from a single image and a smiling image is the one that has the strongest effect on first impressions when comparing first impressions of the same individual on a variety of traits including attractiveness (Todorov & Porter, 2014). More recent studies on first impressions based on faces suggest that people make attributions and change their judgements on a person on even the slightest manipulation of the image and the change in facial expressions make a significant difference (Cone et al., 2017). With this more recent work the accuracy of a still image has come into question with more contradictory results. Studies that have combined the first impression based on an image with a follow-up interaction have suggested that for the most part the impression stays the same (Gunaydin, Selcuk, & Zayas, 2017). However the only impression that stayed the same and was not affected was the condition of similarity between U.S. students. While during a 3 minute interaction confederates' immediacy was able to change the first impression significantly across all dependent variables in both intercultural and intracultural dyads. This is consistent with work that shows the important role of communication and how nonverbal immediacy is able to have a strong effect on first impressions.

Finally, one of the interesting non-findings in this study is that nonverbal immediacy and similarity did not have an additive effect on social attractiveness, potential friendship, or expectations. Indeed, none of the interactions between nonverbal

immediacy and similarity were significant. Instead, nonverbal immediacy and similarity had independent effects on these variables, with immediacy having stronger and more consistent effects. This is important theoretically and practically. From a theoretical perspective, this tells us that both of these variables have some effects on their own and do not appear to work together. This is important practically because international students who are feeling uncertainty may not be able to focus on displaying nonverbal immediacy and showing similarity at the same time, but may still benefit from using either of these strategies.

Strengths and Limitations

Overall, this study looked at the differences across time between pre- and post-interaction perceptions using repeated measures for all of the dependent variables except expectations. One of the strengths of this dissertation is the use of pre- and post-test measures to capture changes in social attraction and perceptions of potential friendship. Rather than just seeing if the participants' perceptions differed after the interaction, the pre- and post-interaction perceptions could be compared to determine differences in the direction and degree of change. A limitation, however, is that the variability in pre-interaction perceptions was rather limited. Regardless of the confederate's culture, the participants generally rated them as socially attractive and had positive expectations about their future interaction. This made it more difficult for the confederates, even when enacting high similarity or high immediacy, to exceed those initial judgments.

One possible reason for such high ratings of their interaction partners prior to meeting them is the timing of this study. Since everyone was going through isolation and online education due to COVID-19, students had fewer chances to interact with fellow students. Conducting a dissertation during a worldwide pandemic made the situation atypical. In this context, the students might have anticipated a more pleasant interaction than they would have if they were regularly attending courses face-to-face and interacting with fellow students on a daily basis. Thus, the scarcity of human interactions might have affected the findings of this study, as might have the context of the pandemic. This dissertation's findings, therefore, might not generalize to other situations. Similarly, the findings may not generalize from Zoom to face-to-face interactions.

Another significant limitation is the small cell sizes, which made detecting any effects, but especially interaction effects, more difficult. The heterogeneity of the sample also limits generalizability of the results. As all of the participants were college students, it would be beneficial to test these results in a community outside of university settings with a sample more representative of the larger population. Although this dissertation focused on the student population and how international students can make positive impressions, similar findings might (or might not) emerge in other contexts such as international business situations.

Another limitation is that findings are limited to a specific type of intracultural and intercultural interaction. Findings cannot, therefore, be generalized to non-US students in intracultural dyads, or to U.S. students interacting with students from areas of

the world other than the Middle East. Similarly, this dissertation focused on the perceptions that U.S. students in their home country had of international students from the Middle East. The study might have produced different results if international students (in this case, those from the Middle East) had interacted with U.S. and Middle Eastern confederates such that the international students were the ones rating the confederates on social attractiveness and potential friendship.

Future Directions for Research

More research should be conducted to determine specific stereotypes that might influence how U.S. students initially perceived international students from the Middle East. These stereotypes could help explain why Middle Eastern women were judged the most positively prior to interacting even though they were not rated as the most similar. As noted previously, it is possible that these initial positive judgments were based on sympathy or other positive emotions tied to stereotypes U.S. students have about Middle Eastern women. These possibilities merit future research attention. In addition, the M.E. women were wearing hijabs in both their profile pictures and during the Zoom interaction, which could have affected how U.S. women perceived them. Specifically, the profiles for the female M.E. confederates included a picture of them wearing a hijab and a description of them as international students from the Middle East. Future studies might explore how female Middle Eastern students wearing and not wearing a hijab are perceived compared to female U.S. students wearing and not wearing a hijab, as well as

to each other. The clothing of Middle Eastern men could also be varied so that some wore a traditional scarf and others did not.

Although this study started in a face-to-face context, due to COVID-19 it was transferred into a computer mediated setting using Zoom. Replicating this study in face-to-face settings and comparing how nonverbal immediacy and similarity function to predict first impressions in face-to-face versus computer-mediated contexts is an important next step in this research, especially given that people nowadays meet for the first time frequently in both of these contexts. Furthermore, the effect of different nonverbal immediacy cues needs to be explored to see which are especially important in impacting first impressions and how this changes in intercultural versus intracultural interactions as well as face-to-face versus computer-mediated interactions. In the post-experiment interviews, the participants most commonly mentioned the confederate looking at their phone as something that stood out the most, therefore this needs to be further tested. It is possible that different nonverbal cues stand out more on Zoom than during face-to-face interactions. People from different cultures may also vary in terms of the nonverbal cues they notice and attach meaning to.

In this dissertation, only perceptions of Middle Eastern and U.S. students were explored. Future studies should explore the perceptions of international students from different countries and identify some of the stereotypes associated with various groups to see how those stereotypes plus interaction impact perceptions. It would be interesting to see if manipulating similarity and nonverbal immediacy have different effects based on

the culture of an international student, and if those effects were tied to how much the interaction departed (in a positive or negative way) from the expectations those stereotypes set. To further enlarge the scope of the findings in this dissertation, it is also necessary to reciprocate this study with a non-college population.

In this dissertation, the political and religious affiliations of participants were not collected. In future studies these could be important points of data that help explain why initial attitudes towards different cultural groups vary. Some cultural groups, including people from the Middle East, are stereotyped in relation to their supposed religious beliefs. If these religious stereotypes make someone seem similar or different, they could have an impact on first impressions. Similarly, political beliefs could affect first impressions, especially if a cultural group is stereotyped to be politically similar or different from one's own political views.

Finally, the idea of intersectionality should be explored to get a better understanding of how people perceive the social identities of different groups of international students based on both culture and gender. This could give researchers a clearer idea of what stereotypes influence pre-interaction expectations and how communication can be used to help international students combat any negative stereotypes that might encounter. Every individual's identity is shaped by multiple forces, including culture and gender, and the complex interplay of these forces on stereotypes and impressions should be considered

Conclusion

The goal of this dissertation was to discover how enacted similarity and displays of nonverbal immediacy impact perceptions of students in intracultural interactions between U.S. students and intercultural interactions between U.S. and Middle Eastern students. Student participants viewed profiles of confederates identified as either a U.S. or Middle Eastern student and then rated their social attractiveness and friendship potential, as well as the degree to which they expected their interaction with them would be positive. Participants were randomly paired with a confederate of the same sex who was either from the Middle East or the U.S., and who enacted either low or high levels of similarity and low or high levels of nonverbal immediacy. Findings showed that Middle Eastern women were perceived the most positively after viewing the profiles. Nonverbal immediacy had a strong and consistent positive effect on perceptions across both intracultural and interpersonal interaction. Similarity had a smaller but significant positive effect on perceptions in intercultural interactions (more so than intracultural interactions). Overall, the results of this dissertation suggest that both international and U.S. students can improve the impressions they make on others by engaging in appropriate levels of nonverbal immediacy, and, to a lesser extent, showing similarity. Hopefully this knowledge can be translated into practice to help international students adjust to their new university environments and make friends.

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APPENDIX A
RECRUITMENT EMAIL

Dear Faculty,

I am reaching out to you, seeking your help as I am trying to finish my Ph.D dissertation. I am currently desperately in need of undergraduate participants.

My research looks at face to face communication during first time interaction between strangers. This study involves students filling out a form online, then those who fit the selection criteria are invited to come into the laboratory in COOR building to interact with another student face to face. The whole process from start to finish takes approximately 30 minutes. Any student who does not wish to participate or are not selected for participation will be given an alternative assignment that I will administer. I will provide a list of students who have participated/completed alternative assignment by the end of the study.

If you are willing to offer extra credit for participation in this study I will really appreciate it if you could make an announcement in class, on Canvas or I would be happy to come in and talk about this research opportunity. The in-lab interactions are done Monday through Thursday between 10 am and 3 pm and are starting on March 2nd and continuing until 120 participants are recruited, so far sadly only 16 students have signed up :(

Here is the announcement that can be posted on Canvas if you are able to offer students extra credit:

Dear Students,

In the link below is the description of an opportunity to earn ____ points of extra credit for this class. Click the link below for a more detailed description of this opportunity.

LINK:<link was provided>

Thank you very much

APPENDIX B

INVITATION TO PARTICIPATE

Dear Students, My name is Anya Hommadova and I am a Ph.D. student under the direction of Professor Laura Guerrero, Ph.D. in the Hugh Downs School of Human Communication. We are conducting a research study to explore initial conversation between college students. We are inviting ASU students who are 18 years or older to participate in this study. The purpose of this form is to provide you with information to help you decide if you will give consent to participate in this research. We are inviting your participation in this study, which will involve the following steps: 1. Uploading your photo 2. Providing demographic information, including background, college major, hobbies, and interests 3. If you are eligible to participate, at a later date convenient to you, you will be asked to join a ZOOM meeting to interact with another student virtually 4. Completing two surveys and interacting for 3 minutes with another ASU student The steps 1 through 4 will take approximately 30 to 40 minutes of your time. If you are selected to participate in the study we would like to video record the interaction between you and the other student and at any time during or after the interaction you can choose to withdraw the consent to being recorded. Your participation in this study is voluntary. You may decline participation at any time. You have the right not to answer any question, and to stop participating at any time. You may also withdraw from the study at any time; there will be no penalty. Your decision will not affect your relationship with Arizona State University, there are no repercussions to saying no or loss of benefits to which you might otherwise be entitled. If you choose to participate, you will be placed on a list that will be given to your communication instructor who will then give you extra credit. Although there may be no direct benefit to you, the possible benefit of your participation is that you will have an opportunity to think about your experiences with someone you have never met before. There are no foreseeable risks or discomforts to you. Your confidentiality will be protected. No sensitive information will be collected. Only the research team will have access to the surveys and video recordings. Your name will be removed from all materials and replaced with a code number. All study records, including video recordings will be erased within three

years of the end of the study. Responses will be confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used. If you have any questions concerning the research study or your participation in this study, please contact us ahommado@asu.edu By signing here you indicate your consent to participate in the pre-screening and provide basic information about yourself and if selected some of this information may be shared with another participant. If you are not selected to participate all of the data collected in this survey will be immediately deleted. If your instructor offers extra credit for participation in this study, but you do not want to participate in it or were not selected as a participant, you will be provided an alternative assignment that will take 30 to 40 minutes to complete and will involve reading a research article and answering questions on the content of the article as well as reflecting on how the content applies to you. If you do not wish to proceed with the prescreening, and would prefer the alternative

Email Address: _____

Please type your name here to indicate that you have read the above and have interest in participating in this study

Name: _____ Date: _____

APPENDIX C

PRESCREENING AND DEMOGRAPHICS SURVEY

Please note that your eligibility to participate in this study will be determined by the information you provide in this survey. If you are eligible to participate we will email you with possible times to join a ZOOM meeting to interact with another student. If you are not eligible to participate in this study, you will receive an email with information about an alternative assignment that we can provide for extra credit.

How old are you? _____

What Gender do you identify with: Male Female Other

Sexual Orientation: Heterosexual Homosexual Bisexual Asexual Other

What is your ethnicity: _____

Which of the following best fits how you identify yourself. Check all that apply:

White Black/African American Asian/Indian Asian/Pacific Islander Native Americans/
Alaska Native Hispanic/ Latino/Latina/ Mexican American Middle Eastern Other

Are you U.S. citizen: Yes No

Describe where you are from. If you are from the U.S. include the city and the state. If from another country, include the city and the country.

Describe your international experience:

I have never traveled internationally

I have traveled for short vacations (less than a month)

I have traveled and lived abroad for more than one month but less than 6 months

I have spent more than six consecutive months abroad

Upload your picture here: upload file

What are your hobbies and interests? List SIX of your hobbies or interests and rank them from 1 to 6 (1 = most important ranked, 6 = least important)

Finish the following sentence: I like..... _____

Finish the following sentence: I hate..... _____

Finish the following sentence:My favorite food is.....

Finish the following sentence:My favorite movies is.....

APPENDIX D

PRE AND POST SURVEY

Perception of Conversation Partner

What is the name of your conversation partner today? _____

The scales below are designed to indicate your perceptions of the student whose profile you have just read. Based on the impression you got from it please indicate the degree to which each statement applies to you by marking whether you strongly disagree (1) to strongly disagree (2) disagree (3) somewhat disagree (4) neutral (5) somewhat agree (6) agree (7) strongly agree.

- S/he seems like a likable person
- This person seems friendly
- He/she would be pleasant to interact with:
- He/she seems easy to get along with
- He/she seems to be someone who is easy to talk to
- I think she/he probably has a good personality
- I will probably like this person
- Having a conversation with this person should be enjoyable
- I could become close friends with her/him
- He/she would fit into my circle of friends
- I would like to get to know him/her better
- I would like to establish a personal relationship with this person
- I have been to Mars
- I would add him/her on my social media
- I would like to hang out with him/her in the future

This person is like me
I would like to meet up with this person at a party
This person thinks like me
This person behaves like me
I think we have a lot of shared interests
This person has thoughts and ideas that are similar to mine
I would like to keep in touch with this person after this study
This person has a lot in common with me
This person seems similar to me
This person shares my values
I expect our interaction will be typical of conversations between college students
I expect our conversation will be similar to those I have with most students
I expect we will communicate with each other like most college students
I expect this will be a pleasant interaction
I expect him/her to be friendly during our interaction
I expect us to share many similarities

Pre Interaction Survey ends with the following screen:

STOP HERE! You are done with the first survey. Thank You! A researcher will be with you momentarily and you will meet your conversation partner. During this interaction please try to get to know your partner. You can start by finding out things such as: What is her/his major? What are your partner's interests and hobbies? What movies and/or music does your partner like? What is your partner's favorite food? What does she/he look for in a friend? etc...

Post Interaction Survey:

The scales below are designed to indicate your perceptions of the student whose profile you have just read. Based on the impression you got from it please indicate the degree to which each statement applies to you by marking whether you strongly disagree (1) to strongly disagree (2) disagree (3) somewhat disagree (4) neutral (5) somewhat agree (6) agree (7) strongly agree.

S/he seems like a likable person
This person seems friendly
He/she would be pleasant to interact with:
He/she seems easy to get along with
He/she seems to be someone who is easy to talk to
I think she/he probably has a good personality
I will probably like this person
Having a conversation with this person should be enjoyable
I could become close friends with her/him
He/she would fit into my circle of friends
I would like to get to know him/her better
I would like to establish a personal relationship with this person
I have been to Mars

I would add him/her on my social media
I would like to hang out with him/her in the future
This person is like me
I would like to meet up with this person at a party
This person thinks like me
This person behaves like me
I think we have a lot of shared interests
This person has thoughts and ideas that are similar to mine
I would like to keep in touch with this person after this study
This person has a lot in common with me
This person seems similar to me
This person shares my values
Our interaction was typical of conversations between college students
Our conversation was similar to those I have with most students
We communicated with each other like most college students
The interaction was more pleasant than I expected
She/he was more friendly than I expected
She/he had more similarities with me than I expected
If I wanted to get things done, I could probably depend on him/her
He/She would be a good problem solver
I would recommend her/him as a work partner
I have confidence in her/his ability to get the job done
He/She is not likely to goof-off when assigned a job to do
I would enjoy working on a task with her/him
This person takes her/his work seriously
This person would be an asset in any task situation

SECTION 5 of Survey (new page)

The scales below are designed to indicate your perceptions of the student whose profile you have just read. Based on the impression you got from it please indicate the degree to which each statement applies to you by marking whether you strongly disagree (1) to strongly disagree (2) disagree (3) somewhat disagree (4) neutral (5) somewhat agree (6) agree (7) strongly agree.

He/she smiled when he/she was talking to me
He/she showed enthusiasm while talking to me
He/she had a lot of vocal variety when he/she talks to people.
He/she maintained eye contact when talking with me
He/she looked directly me while talking to me
He/she was intensely involved in our conversation.
From her/his behavior I could tell s/he was really involved in the conversation
He/she seemed interested when talking with me
He/she was animated when talking to me

SECTION :6 Demographics

What gender do you identify with? Male Female Other

Which of the following best fits how you identify yourself. Check all that apply:
White, Black/African American, Asian/Pacific Islander, Native Americans/ Alaska
Native, Hispanic/ Latino/Latina/ Mexican American, Middle Eastern

What year are you: Freshman Sophomore Junior Senior Other

APPENDIX E

IMMEDIACY AND SIMILARITY CODING SHEET

Q #	Please MUTE the video and answer the following questions about the Alen/Ali (if male) or the female Alia/Ally (if female):			
1	Overall, how much did the confederate smile throughout the interaction?	Smiled a lot	1 to 7	Didn't smile at all
2	Overall, how much was the confederate leaned in?	Leaned in towards the camera a lot	1 to 7	Leaned back into their seat a lot
3	Overall, how much was the confederate animated throughout the interaction?	Very animated	1 to 7	Very unanimated
4	Overall, how much did the confederate gaze directly into the camera?	Gazed a lot	1 to 7	Hardly gazed at all
5	Overall, how much interest did the participant show toward the confederate during their interaction?	Seemed very interested	1 to 7	Seemed very disinterested
6	Overall, how involved did the confederate seem to be in the conversation?	Very involved	1 to 7	Not involved at all
7	Overall, how much did the confederate look at his or her cell phone during the interaction?	Not at all	1 to 7	Many times

Similarity Manipulation Check

Q #	First read person A's profile. Then read Person B's conversation. Compare person A's profile to what person B said during conversation.
-----	---

1	Based on comparing the profile to what the confederate said I think person A and person B:	Have a lot in common	1 to 7	Have nothing in common
2	Based on comparing the profile to what the confederate said I think person A and person B:	Are a lot like each other	1 to 7	Are nothing like each other
3	Based on comparing the profile to what the confederate said I think person A and person B:	Have a lot of shared interests/hobbies	1 to 7	Have no shared interests/hobbies
4	Based on comparing the profile to what the confederate said I think person A and person B:	Are very similar	1 to 7	Are very dissimilar
5	Based on comparing the profile to what the confederate said I think person A and person B:	Have similar academic background/majors	1 to 7	Have dissimilar academic background/majors

APPENDIX F

PROTOCOL FOR CONFEDERATES

Read this carefully Please:

Step One: Sign Up

Every week you will need to sign up in the google document titled: “Working Schedule” for shifts you are responsible for (here is the link:<link was provided>

Looking at the scheduled shifts that participants signed up for, please put your name next to participants' names during the times you are available.

Step Two: Doing your Homework PRIOR to the interaction

Prior to your interactions you need to do your research about the person whom you will be interacting with. Here is the link to the information of all of our participants, please keep this information private. <link was provided>

This link is to the folder, as I will keep updating the sheet when more people sign up. Use CTRL + F to search for the name of the participant, then scroll right to see their major, hobbies, likes/dislikes and favorite food. Write out the condition and the information about the participant PRIOR to your interaction in the tab “Conditions and Notes” you need to fill the information in the row “Participant Condition/Major/Interests”

<link was provided>

After you fill out the “Condition and Notes” please write out your action plan in the next tab. For example if you are in the similar condition and the participant likes hiking,swimming,running, surfing, your plan of action could be “I will focus on also liking hiking and running and will talk about trails in AZ”

Step Three: Interaction

Come online 5-10 minutes prior. If late or emergency happens call me 480-207-8994

Make sure you have nothing in your background. Click on this link to join the ZOOM meeting:

<https://asu.zoom.us/j/.....>

You will be put in a virtual waiting room. There you must CHANGE YOUR NAMES, click “rename” :

Male confederates from Middle East will be Ali (علي)

Male confederates from U.S. will be Alan.

Female Middle Eastern confederates will be Alia (عالية)

Female confederates from U.S. will be Ally

When you enter the virtual room please turn off your VIDEO until instructed to turn it on. I will give instructions to you and the other participant as if you are a participant as well, so you can ignore all of that and if you need to communicate with me use “private chat” function or text my phone. After the participant finishes their paperwork I will say. “Please turn on your webcams, and let me introduce you to your interaction partner.” here you will turn on your webcam and I will explain the interaction and post the suggested topics in the public chat, explaining that you will have 3 minutes to get to know each other” I will ask the confederate to start the interaction then turn off my webcam and you can start the interaction.

How to act:

For high immediacy you need to do the following:

1. Lean closer to the camera and wave you hand like you are super happy to see this person with a biggest smile you can do
2. Remain smiling throughout the interaction
3. Use a lot of vocal variety to show excitement for the interaction
4. Look directly at the screen and keep good eye contact
5. Be as animated and as friendly as you can be

For High Similarity

1. When you can mention that you like the things you know they like before they even mention it
2. If asked a question you do not know if the participant would share your views or now, try to avoid it if possible and ask them the same question back

3. If the interaction starts with talk about coronavirus, give a vague answer, ask them how they feel then say you feel the same way.

4. Do not pretend to be similar in liking things that you are not familiar with. Ex: liking a movie you have never seen, or liking video games if you don't play video game etc...

Step Four: Post interaction

Once the interaction is over, I will send the link to a survey to have it filled out, then I will ask the confederate to go to another virtual room to get further instructions. Once the survey is done I am going to ask the participant what they thought about the interaction and how they felt. After that I will bring you back into the same virtual room and explain the deception part.

Please, please if you were in the low immediacy condition and the interaction was awkward or not very pleasant say something nice to reassure the participant that you were acting and in reality you are not like what you pertraid yourself as.

Step Five: Write notes and Record hours worked

Log your hours and make notes about each interaction

<link was provided>

APPENDIX G

APPROVAL: EXPEDITED REVIEW



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On 11/1/2019 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Nonverbal Immediacy and Perceived Similarity Effects on Social Attraction and Friendship Potential in Intercultural and Intracultural Interaction
Investigator:	Laura Guerrero
IRB ID:	STUDY00010743

Category of review:	
Funding: None	None
Grant Title: None	None
Grant ID: None	None
Documents Reviewed:	<ul style="list-style-type: none"> • Alternative Assignment, Category: Other; • 2. Demographic and Prescreening.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • 1. Invitation to Participate.pdf, Category: Recruitment Materials; • 3. Consent Form in Labratory.pdf, Category: Consent Form;
Documents Reviewed:	<ul style="list-style-type: none"> • 4. Pre-interaction survey.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • 5. Interaction Instructions.pdf, Category: Participant materials (specific directions for them); • 6. Post Interaction Survey Part One.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • 7. Post-interaction Survey Part Two.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • 8. Debriefing Script.pdf, Category: Recruitment Materials; • 9. Post-Debriefing Consent.pdf, Category: Consent Form; • Email that will be sent to Communication courses instructors in commgradinfo list serve.pdf, Category: Recruitment Materials; • Protocol 10-29, Category: IRB Protocol; • Wizard Completion proof, Category: Other;

The IRB approved the protocol from 11/1/2019 to 10/31/2024 inclusive. Three weeks before 10/31/2024 you are to submit a completed Continuing Review application and required attachments to request continuing approval or closure.

If continuing review approval is not granted before the expiration date of 10/31/2024 approval of this protocol expires on that date. When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the

INVESTIGATOR MANUAL (HRP-103).

Sincerely, IRB Administrator

cc: Anna Hommadova

Anna Hommadova

Laura Guerrero