U.S. Students' Perceptions of a Target Chinese Student on Facebook: Testing the Warranting Effects of Stereotype Relevant Messages

By

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ABSTRACT

Extending prior literature on stereotypes of Chinese international students held by Americans (Ruble & Zhang, 2012; 2013) and warranting theory (Walther & Parks, 2002), this experimental study examined the effects of exposure to a target Chinese international student's Facebook page with stereotypical self-generated (positive or negative) and/or other-generated wall posts (positive or negative) on U.S. participants' judgments and behavioral tendencies toward the target. Specifically, the results (N = 572, *Mage* = 21.98, SD = 5.31) indicated that negative other-generated posts decreased the positive effects of positive self-description on participants' judgments of the target, and positive other-generated posts reduced the negative effects of negative self-description. When the target's self-generated and other-generated posts were consistent, other-generated posts in general produced an averaging effect on participants' perceptions of the target, indicating the complexity in testing warranting theory.

Findings in this study have demonstrated the theoretical validity and utility of warranting theory in mediated intercultural communication context by examining the effects of both the valence and sources of the messages that were consistent with existing cultural stereotypes on impression formation and willingness to communicate and cooperate with the Chinese target. From the practical perspective, positive self-presentation on social networking sites opens opportunities for international students to establish friendships with host nationals. However, negative statements made by others may provide the potential to decrease the positive effects of online self-presentation. In general, findings of this study provide university staff and offices of international students with insightful suggestions to help international students manage self-presentation in response to cultural stereotypes and other-generated messages in adapting to the new cultural environment.

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CHAPTER ONE: INTRODUCTION

The advancement of communication technology has increased globalization and provided more opportunities for intercultural and intergroup interactions (Abrams & Hogg, 2004; Caine, 2011). Communicating with individuals from other cultures contributes to the improvement of intercultural relations and intergroup attitudes (Allport, 1954; Pettigrew, 1998). Allport (1954) identifies four optimal conditions under which intergroup contact enhances intergroup relations, including equal group status, common goals, cooperative interdependence, and institutional support. Prior literature indicated the significant and positive roles played by both frequency and quality of contact in disconfirming stereotypes and improving intergroup attitudes (Christian & Lapinski, 2003; Shim, Zhang, & Harwood, 2012). For example, Christian and Lapinski (2003) examined contact between U.S. high school students and Muslim Americans and intergroup attitudes. They found that students who had Muslim friends or frequently interacted with the Muslim friends endorsed fewer negative stereotypes and held more positive attitudes toward Muslims than those who did not have any contact with Muslims. Liu, Zhang, and Wiebe's (2017) study indicated that even minimum initial positive contact with an international student was associated with U.S. students' perceptions of friendship potentials and general positive attitudes toward the cultural group where the international student came from. Essentially, these studies emphasized the importance that frequent and positive intercultural contact played in enhancing interpersonal, intercultural, and intergroup relationships.

Scholastic environments, such as colleges and universities, are the primary places in which intercultural communication occurs (Williams & Johnson, 2011). The U.S. has attracted the largest number of international students in the world with more than one million during the 2018-2019 academic year (Institute of International Education, 2020). China has been the top

country of origin of U.S. international students with 369,548 enrolled in 2019, accounting for nearly 33% of the total. An increased campus diversity provides more opportunities for intercultural interactions. With one-fourth of the world's population (Current World Population, 2020) and forty percent of the global GDP (World GDP Ranking, 2020), the U.S. and China are two powerful and influential superpowers in the world (Jannuzi, Hills, & Blair, 2007). Therefore, the relationship between the U.S. and China plays a crucial role in sustaining global peace and development. Contributing to the literature on interpersonal communication in intercultural context, the current study particularly examines U.S. domestic students' perceptions of and interactions with Chinese international students.

Intercultural contact benefits both domestic and international students (Denson & Zhang, 2010; Luo & Jamieson-Drake, 2013; Wells, Duran, & White, 2008). For domestic students, those who had intercultural experiences tend to be more open-minded, have better leadership and problem-solving skills, and respect diversity more in the workplace (Denson & Zhang, 2010; Luo & Jamieson-Drake, 2013; Wells, Duran, & White, 2008). For international students, since relocating to a new country is often associated with negative feelings such as anxiety, loneliness, homesickness or disappointment (Hayes & Lin, 1994; Li & Gasser, 2005; Yang & Clum, 1995), interactions with locals may help them cope with stress, extend their social networks, and therefore help them to connect with and adjust to the new environment more easily (Bertram et al., 2014; Constantine et al., 2005; Hendrickson, Rosen, & Aune, 2011; Hofhuis et al., 2019; Mao & Qian, 2015).

However, communicating or making friends with someone from a different culture can be difficult and challenging. Individuals by nature feel more comfortable when communicating with ingroups and are more connected with those who are similar to them (Chen, 2002; Liu,

Zhang, & Wiebe, 2017). Due to cultural differences and language competence, few close intercultural relationships actually develop even if opportunities for intercultural interactions are provided (Halualani et al, 2004; Ward & Masgoret, 2004). In addition, since intercultural communication typically involves higher levels of uncertainty and anxiety than intracultural communication (Gudykunst, 1995; Gudykunst & Nishida, 2001; Samochowiec & Florack, 2010; Stephan & Stephan, 1985) because of cultural differences and unfamiliarity with cultural norms, intercultural communication is largely guided by individuals' pre-existing knowledge, attitudes, and the general stereotypes that they hold about one another (Manusov & Hegde, 1993). In the process of intercultural communication, cultural stereotypes help individuals reduce uncertainty and anxiety (Operario & Fiske, 2003).

Despite the fact that cultural stereotypes could be helpful to some extent, intercultural communication is severely constrained and impeded by those incomplete, negative, and inaccurate preconceptions (Fiske, 1998). Prior scholars argued that intergroup biases were the primary causes of misunderstanding, tensions, and conflicts during intergroup interactions (Demoulin, Leyens, & Dovidio, 2013). To a large extent, stereotypes are exaggerations or overgeneralized characteristics of certain social groups, hence, they may augment extreme behaviors in intergroup communication and are essentially harmful (Operario & Fiske, 2003). As stereotypes evoke behavioral justification and confirmation of stereotypical expectations, minorities who are usually stereotyped in negative ways often face prejudice and discrimination (Lee & Joo, 2005; Yuen et al., 2005). In addition, negative stereotypes are frequently linked with negative emotions such as perceived anxiety (Ruble & Zhang, 2012), threat (Steele, 1997), anger (Ufkes et al., 2012), and distrust (Foddy, Platow, & Yamagishi, 2009; Stanley et al., 2011). In most cases, these negative emotions tend to be primary predictors of interpersonal

disengagement (Imamura & Zhang, 2014), and are the roots of intergroup prejudice and discrimination (Operario & Fiske, 2003). Indeed, cultural stereotypes, including positive ones, could set unrealistic expectations for all individuals in the whole cultural group, accentuate social differentiation, and thus maintain the distinction between "us" and "them" (Gudykunst & Kim, 2002).

Considering the influence of stereotypes on communication, the first goal of the current study is to examine the effects of exposure to typical stereotypes of Chinese international students on U.S. domestic students' impressions of, willingness to communicate and willingness to cooperate with a target Chinese international student. Research on stereotypes about Chinese international students has gained increasing scholarly attention in recent years. In a study using exploratory factor analysis, Ruble and Zhang (2013) identified five primary stereotypes of Chinese international students held by Americans, including smart/hardworking, shy/not social, bad English/not assimilated, nice/friendly, and oblivious/annoying (see Zhang, 2015 as well). In light of the study above, the current project aims to explore whether U.S. students' anxiety toward, perceptions of (i.e., trust, social, and task attractiveness), willingness to communicate, and willingness to cooperate with a target Chinese student are influenced by the typical stereotype the student represents.

With the rapid development of online technologies, research on intercultural communication has been extended from face-to-face (FtF) interactions to computer-mediated settings. Compared to FtF communication, which is not always possible and often limited by time constraints, computer-mediated communication (CMC) is usually more efficient and convenient (Herring, 1996). Among different types of CMC tools, social networking sites (SNSs) have received significant academic attention in recent years. Facebook, for example, had

2 billion monthly active users in 2019, making it the largest SNS in the world (Facebook Newsroom, 2020). People use Facebook to interact with friends they have already met and make new friends simultaneously (Ellison, Steinfield, & Lampe, 2007; Pempek, Yermolayeva, & Calvert, 2009; Tong & Walther, 2011). Launched in 2004 as a social tool for communication, college students composed the majority of early Facebook users. Currently, Facebook is also popular among users from Asia, Europe, the Middle East, and South America (Facebook Newsroom, 2020). When international students study in a different country, Facebook becomes one of their major tools to make friends and establish connections with host students (Li & Chen, 2014; Ye, 2005, 2006). Even for places where Facebook is forbidden, such as mainland China, students still use it to build connections and extend their existing friendship networks after relocating to a new country (Li & Chen, 2014; Lin et al., 2012; Rui & Wang, 2015).

Most of the existing literature on stereotypes and the ways that those stereotypes impact judgments and communication have been conducted based on face-to-face interactions (Galinsky & Moskowitz, 2000; Hummert et al., 2004; Tempel & Neumann, 2016) or mass media portrayals (Dixon & Azocar, 2008; Lien, Zhang, & Hummert, 2009). However, few studies have examined how international students, especially Chinese students, are perceived by and interact with domestic students on SNSs (Qiu, Lin, & Leung, 2013). Indeed, individuals today often consider SNSs as tools to manage impressions and claim identities (Walther, 2007; Yang & Brown, 2016). Since SNSs are essentially permeated with group-level information (Carr et al., 2016; Schumann, Van Der Linden, & Klein, 2012), SNSs users (i.e., Facebook users) are highly likely to use typical cultural and stereotypical traits to describe themselves on their profiles either consciously or unconsciously (Huang & Park, 2013). In other words, SNSs users may engage in self-stereotyping. Social categorization theory defines self-stereotyping as the process in which

individuals represent or describe themselves using stereotypical traits that are consistent with those prevalent labels describing their social group in general (Haslam, Powell, & Turner, 2000; Hogg & Turner, 1987; Latrofa, Vaes, Cadinu, & Carnaghi, 2010). Regarding the increasingly inseparable role of online technology in our lives, SNSs, especially Facebook, could be important avenues where intercultural communication happens and stereotype-relevant information is represented (Alvídrez et al., 2015; Schumann, Van der Linden & Klein, 2012). Hence, the current study examines interactions between U.S. domestic students and a target Chinese international student on Facebook. More specifically, the first goal of the experimental study examines the effects of exposure to a target Chinese international student's Facebook page with self-stereotyping statements on U.S. students' anxiety toward, perceptions of (i.e., trust, social attractiveness, and task attractiveness), willingness to communicate, and willingness to cooperate with the Chinese student.

Recently, studies on Facebook interactions have shown that individuals' perceptions about others are influenced more by other-generated information than self-generated information (DeAndrea et al., 2015; Lane et al., 2016; Tong et al., 2008; Utz, 2010; Walther et al., 2008). Therefore, the second goal of the current study is to explore how statements made by others (i.e., the Chinese target's U.S. Facebook friends) on the Chinese target's Facebook page influence U.S. students' perceptions and willingness to communicate and cooperate with the target. As observers often find an immense gap between one's online and offline images, they may feel skeptical about self-presented information online (Walther & Parks, 2002). Walther and Parks (2002) argue in warranting theory that information which users get from the Internet contains different levels of validity. Compared to self-generated information, other-generated or system-generated information in most cases is perceived by observers as having higher value, and

therefore is more objective and reliable (Walther et al., 2008; Walther & Parks, 2002; Tong et al., 2008; Utz, 2010). Since the current project is also interested in exploring the influence of statements made by the Chinese international student's Facebook friends, warranting theory is employed as an important theoretical framework guiding this project.

CHAPTER TWO: REVIEW OF LITERATURE

The review of literature in this chapter is concentrated on three major areas. *The first section* offers a theoretical discussion of stereotypes, stereotypes about Chinese international students, and stereotypes in computer-mediated settings. *The second section* discusses the central variables of the current study (i.e., communication anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate) and their relationships with stereotypes. *The third section* summarizes the major theoretical arguments of warranting theory and warranting effects in social media. Five hypotheses and two research questions are proposed based on the theoretical synthesis of prior literature in this chapter.

Stereotypes

Stereotypes are "pictures in our heads" that simplify how people think about human groups (Lippmann, 1922; Operario & Fiske, 2003). In this regard, stereotypes are cognitive structures that serve as a knowledge base in guiding individuals' communication behaviors (Hummert, 1994; Spencer-Rodgers & McGovern, 2002). The potency of stereotypes is largely determined by the social context within which they arise (Turner et al., 1994). Mass media is considered the primary source where stereotypes arise. For most countries in the world, as the dominant majority controls mass media, they typically have the loudest voice and are portrayed by the media in a more positive way (Operario & Fiske, 2003; Seiter, 1986). On the contrary, minorities have less power and they are typically presented in mass media as evil, incompetent, and problematic to the society (Greenberg, Mastro, & Brand, 2002; Wilson & Gutierrez, 1985). One detrimental consequence associated with this "reality" is that individuals of one social group lack opportunities to interact with members from other groups, and when they do interact, their

negative stereotypes about the other group could be exacerbated and become permanent (Operario & Fiske, 2003).

Communication reflects and is shaped by group membership for several reasons. First, individuals' stereotypes toward outgroups are rooted in the fundamental cognitive processes of perceiving and making sense of the world (Operario & Fiske, 2003). The process of stereotyping follows the basic rules of social categorization (Rothbart & John, 1985). In order to keep the complicated world well-organized, human brains tend to store things into different categories. Instead of perceiving every trivial attribute of an object, people only need to attend to the few diagnostic cues in order to recall this object in the future. To some extent, stereotypes are the cues that many use to help them systematize the abundant information that they receive from the environment every day (Macrae, Stangor, & Hewstone, 1996; Operario & Fiske, 2003). In intergroup and intercultural communication, stereotypes are the mental images of outgroups that tend to be overgeneralized. Although stereotypes about certain groups of people, to a large extent, are inaccurate or incomplete, their existence is necessary for individuals to deal with uncertainties, predict others' behaviors, and thus reduce anxiety during interactions.

Second, since stereotypes are often associated with the process of social identification, they may function as ways to protect ingroup benefits (Operario & Fiske, 2003). Social identity theory argues that individuals are motivated to establish positive distinctiveness and engage in behaviors of favoring the ingroup during intergroup competition (Haslam, 2010; Tajfel, 1972). In order to achieve a more superior status, individuals instinctively allocate more rewards to the ingroup, while derogating or impairing outgroups in some way (Ashforth & Mael, 1989). Consistent with images delineated by mass media, the ingroup in history textbooks is often portrayed positively as being strong, just, brave, and brilliant, whereas outgroups are typically

depicted as being less competent or unjust (Operario & Fiske, 2003). In this respect, ingroup favoritism seems to be a more reasonable explanation than outgroup rejection for the existence of stereotypes. And for that reason, although expressed racial prejudice has declined over the past decade, aversive racism, and negative stereotypes have still persisted (Gaertner & Dovidio, 2000).

Lastly, at the societal level, intergroup biases also reveal power imbalances and group hierarchies (Operario & Fiske, 2003). Since individuals at the top of the social hierarchy usually control more resources, they are more likely to engage in and benefit from stereotyping those lower on the hierarchy (Sidanius & Pratto, 2001). For example, the supervisor of an organization may rely on certain stereotypes to predict behaviors of subordinate employees. The supervisor may only need to remember the general information about the subordinate employees such as which division they come from. In contrast, the subordinate employees are required to remember more detailed information about the leader. From this perspective, higher status group members might sometimes lack the motivation to form accurate impressions of those from minority or lower status groups (Operario & Fiske, 2003; Sidanius & Pratto, 2001). Since stereotypes are powerful tools to maintain social hierarchies and rationalize social inequalities, stereotypes and other related intergroup biases seem impossible to eliminate completely (Fiske, 1993),

Stereotypes can be positive or negative. Typically, stereotypes are conceptualized along two dimensions—warmth and competence (Bettelheim & Janowitz, 1950; Fiske et al, 2002). The warmth dimension is represented by traits such as kindness, friendliness, or trustworthiness, and reveals an accommodating orientation toward others rather than self. In contrast, the competence dimension assesses characteristics such as one's efficacy, confidence, capability, and intelligence. Our schematic representations (i.e., stereotypes) of a social group are highly

associated with our feelings, attitudes, and behaviors toward the group (Cuddy et al, 2008; Fiske et al., 2002). Positive feelings such as liking, trust, and admiration are typically linked to groups that are stereotypically viewed as competent and friendly. However, negative stereotypes may potentially elicit negative emotions such as anger, fear, or anxiety (Cuddy et al, 2008; Fiske et al., 2002). As stereotypes may limit the depth and effectiveness of intercultural communication (Operio & Fiske, 2003; Ruble & Zhang, 2013), it could be valuable for us to explore how members of a majority group perceive and interact with members of a minority group based on different stereotypes.

Stereotypes about Chinese and Chinese international students. Most studies on stereotype contents were conducted based on a particular social group. For instance, by examining undergraduates' attitudes toward Asian Americans, Ho and Jackson (2001) explored both the positive (i.e., ambitious, hardworking, intelligent, family-oriented, and so on) and negative (i.e., cold, deceitful, nerdy, sly, and so on) perceptions of Asian Americans. Despite Asian Americans originally being perceived in a more negative way around the 1930s, they are now generally evaluated favorably and considered as a model minority by both mass media and the general public (Wong et al., 1998; Yee, 1992; Zhang, 2015). Because Asian Americans tend to have higher annual income and higher levels of education than other U.S. minorities (Peterson, 1971), Asian Americans are often praised for their success in assimilating into a new society. However, some studies also pointed out the negative images associated with Asian Americans such as "nerdy" and "left out" (Yuen et al., 2005; Zhang, 2010). Compared to other minority groups, Asian Americans are often portrayed less and misrepresented more often in mainstream media (Lee & Joo, 2005). More importantly, since the stereotype of model minority is likely to lead to feelings of envy or resentment (Ho & Jackson, 2001; Uba, 1994; Yee, 1992),

this stereotype may potentially cause social friction and increase crimes against the Asian American community (Guthrie & Hutchinson, 1995; United States Commission on Civil Rights, 1992).

Although most literature on stereotypes considered Asian Americans as a general category, a few researchers have examined the specific stereotypical traits associated with individuals from a particular Asian country (Gilbert, 1951; Katz & Braly, 1933; Ruble & Zhang, 2013). In an earlier study, Katz and Braly (1933) found that Chinese immigrants were typically evaluated as superstitious, sly, or conservative, whereas later research gradually shifted away from these negative traits to the positive characteristics such as tradition-loving and family-oriented (Gilbert, 1951). Recently, studies have also examined stereotypes held by Americans about sojourners from a particular culture. As mentioned in the introduction, by analyzing responses from more than 100 American students at a large Midwestern university, Ruble and Zhang (2013) identified five primary stereotypes of Chinese international students: smart/hardworking, shy/not social, bad English/not assimilated, nice/friendly, and oblivious/annoying. Since prior research emphasized the potential role that stereotypes may play in intercultural communication (Ruble & Zhang, 2012; 2013), the current study explores this relationship in the CMC context.

Stereotypes in computer-mediated settings. Computer-mediated communication (CMC) refers to a process in which information transaction occurs through the use of two or more electronic networked devices (McQuail, 2005). CMC includes a variety of forms such as instant messaging, email, text messaging, chat rooms, online forums, or SNSs (Thurlow, Lengel, & Tomic, 2004). Compared to face-to-face interaction, CMC is often praised for its convenience (Amichai-Hamburger & McKenna, 2006). Since computer-mediated tools make communication

accessible by overcoming time and geographical barriers, individuals often engage in the interactive process with less cost and stress (Walther, 2007). With the help of email or text messaging, individuals can easily collaborate with those living in different places (Thurlow, Lengel, & Tomic, 2004).

As one of the essential CMC tools, SNSs are frequently used by people to connect with others (Ellison, Steinfield, & Lampe, 2007). Meanwhile, individuals also use SNSs to promote positive images, highlight identities and manage impressions (Marcus, Machilek, & Schütz, 2006; Shafie, Nayan, & Osman, 2012). Brunswik's lens model (1956) argues that individuals often form impressions of others via cues that reflect others' characteristics (e.g., environmental residues, nonverbal behaviors, or profile information online). As an example, Gosling and colleagues (2002) found that physical environmental cues such as one's office or bedroom helped individuals make judgments on the occupants' personalities. Likewise, Gifford's study also (2006) suggested that individuals' personalities could manifest through their nonverbal behaviors during interactions.

As individuals may deliberately generate information about themselves through SNSs, people also consider SNSs "windows" to learn about others. Studies in recent years emphasized the important role that web pages or SNSs (e.g., Facebook) played on impression formation (Hall et al., 2014; Marcus, Machilek, & Schütz, 2006). For example, Marcus, Machilek, and Schütz (2006) found that individuals' personal websites were rich in information for others to infer the profile owners' personalities. Likewise, Hall and colleagues (2014) found that observers could rely on quantifiable features presented on one's Facebook profile (i.e., number of friends, status updates, or pictures posted) to estimate the profile owner's extraversion, agreeableness, and conscientiousness. In most cases, the cues that observers rely on to form impressions of and

make judgments on the profile owner can accurately reflect this person's personality (Hall et al., 2014).

Indeed, computer-mediated settings also have profound implications on our behaviors during intergroup interactions. The social identity model of deindividuation effects (SIDE model) posits that individuals are more susceptible to group influence and stereotype-relevant information in depersonalized CMC settings (Postmes, Spears, & Lea, M., 1998; Reicher, Spears, & Postmes, 1995). As earlier CMC settings were relatively anonymous and lacked important social cues (e.g., facial expression, vocal tone, or gestures), individuals' social identity was exaggerated and became more salient compared to their personal identity. As an intergroup framework describing individuals' group behaviors online, the SIDE model was applied to numerous empirical studies at the early stage of Internet development when most online platforms were anonymous (Carr, Vitak, & McLaughlin, 2013; Lea, Spears, & De Groot, 2001; Postmes, Spears, & Lea, 2002). For example, Postmes, Spears and Lea (2002) examined intergroup discussions among students from different countries and students with different majors on a text-based computer-conferencing system. They found that participants in the depersonalized group (personally unidentifiable) were more likely to stereotype one another and had more polarized opinions during interactions compared to the individuated condition (personally identifiable). Because visual anonymity led to group-level self-categorization and group-based stereotyping, individuals in anonymous CMC settings were more attracted to their own social group than to individual traits (Postmes, Spears, Sakhel, & De Groot, 2001).

However, with the spread of more diverse Web 2.0 tools, the broad application of the SIDE model is questioned. SNSs, for example, are centered on real life relationships. SNSs users can examine others' emotions through pictures or emoji. In addition, even for platforms that are

anonymous or have reduced availability of nonverbal cues, CMC settings still contain important emotional and relational messages (Walther, 1992; Wang, Walther, & Hancock, 2009). Walther (1992) argues in social information processing theory that computer-mediated settings actually slow the speed that impression related information is exchanged and therefore extends the time that interpersonal relationships are developed. Although individuals may form incomplete images of their interactive partners at the initial state of interaction, they will have a more comprehensive impression as time goes on. Instead of eliminating or reducing the important social cues of impression formation, individuals just require more time to form accurate impressions of others in computer-mediated settings.

Even though the primary arguments of the SIDE model could be less applicable on some CMC domains, we cannot ignore the important information this model delivers. First, regardless of whether or not CMC settings are anonymous, they are important sources containing group level information. Facebook, for example, has certain features signaling individuals' social identities and differentiates its users based on the groups they belong to or the pages they like. Studies have found that social groups based on similar interests on Facebook provide settings where intergroup contact can occur, and consequently decrease intergroup prejudice and increase mutual acceptance (Schumann, Van Der Linden, & Klein, 2012). Despite individuals' personal identities being important in SNSs, we cannot ignore the fact that individuals are more sensitive or susceptible to group-level information than in face-to-face situations, especially at the initial stage of relationship development (Postmes, Spears, & Lea, M., 1998; Reicher, Spears, & Postmes, 1995).

Indeed, self-categorization theory posits that our group identity can overlap with or be integrated into our personal identity when we strongly identify with a group membership

(Haslam, Powell, & Turner, 2000; Hogg & Turner, 1987). This process is defined by prior scholars as self-stereotyping (Hogg & Turner, 1987; Latrofa, Vaes, Cadinu, & Carnaghi, 2010). Specifically, it describes the situation in which an individual internalizes the general group-level characteristics into his or her self-concept. As SNSs potentially reveal individuals' personalities and indicate what a person might be like or identify with (Gosling et al., 2011; Hall & Pennington, 2013), international students' Facebook page may contain important group or stereotype-relevant information that highlights intergroup differences and reflects the students' acculturative stage. Recently, an increasing number of studies have explored how international students manage social networks and adapt to their new environments with the help of SNSs (Lin et al., 2012; Ye, 2005, 2006). For example, Lin and colleagues found that international students who frequently interacted with host students using Facebook received more social support and encountered fewer difficulties with social adjustment (Lin et al., 2012). Therefore, U.S. students' perception of and willingness to communicate/ cooperate with international students could be affected by the information they get from international students' Facebook profiles.

Stereotypes, Communication, and Cooperation

Stereotypes play vital roles in both communication and cooperation. The relationship between stereotypes and communication is the essential focus in a variety of studies related to intergroup communication (Cuddy, Norton, & Fiske, 2005; Hummert, 1994; Hummert et al., 2004; Lyons & Kashima, 2003). Specifically, communication accommodation theory (Giles, 2008) argues that individuals tend to adjust and modify their communicative behaviors during interactions in response to situational cues and pre-existing stereotypes. In intergenerational communication, for example, if young people recognize certain age cues of the older person in interaction, their stereotype of older adults as incompetent or having hearing problems is

activated, and their subsequent stereotyped-based communication, accommodation, or adjustments could be made inappropriately by using more patronizing communication (Hummert et al., 1998; Ryan et al., 1986). This stereotyped-based or maladjusted communication will eventually lead to communication dissatisfaction and older adults' health decline and lower self-esteem.

In addition, prior scholars also found that ingroup members' desire to affirm shared beliefs about the outgroup may lead to an increasing use of stereotype-relevant topics during ingroup discussions (Kurz & Lyons, 2009; Ruscher, 1998; Ruscher & Hammer, 2006). For example, Manusov and Hegde (1993) examined U.S. students' stereotypes about and interactions with Indian students. They found that Americans who had pre-existing stereotypes about Indians tended to use languages and select conversational topics differently compared to those without such knowledge when actually communicating with an Indian. American participants who had stereotype-based expectancies in terms of dress, marriage, recreational activities, and political system were less likely to use open feedback statements or summaries during interactions. Instead, they were more likely to bring up topics that seemed diverse but were relatively biased and superficial. To some extent, their studies not only demonstrate the close relationship between stereotypes and communication, but also the way that stereotypes limit and shape communication.

Willingness to communicate. Although prior literature indicated a strong link between stereotypes and communication, scholars haven't extensively studied the influence of stereotypes on individuals' willingness to communicate with one another in intercultural interactions. Willingness to communicate is defined as individuals' intentions to engage in future interactions with their interactive partner, such as talking or starting a conversation (Imamura & Zhang,

2014; McCroskey & Richmond,1987; Ruble & Zhang, 2012). Since all human relationships to some degree start with individuals' curiosity toward others, willingness to communicate with others plays a pivotal role in intercultural relationship development (Duck, 1988; Sias et al., 2008). Previous scholars divided communication into different stages and labeled the first phase of communication transaction as "the entry phase" (Berger & Calabrese, 1975). Individuals at the entry stage tend to form a confident judgment about whether or not to develop a closer relationship through their initial exploration of each other's attitudes and opinions. Hence, the development of long-term relationships largely relies on individuals' formed impressions in the initial encounter (Sunnafrank, 1986; Sunnafrank & Ramirez, 2004).

Individuals' motivation to engage in communicative behaviors with others and build future relationships could be influenced by interpersonal factors, such as individuals' personalities (MacIntyre & Charos, 1996), perceived similarities (Kandel, 1978; Liu, Zhang, & Wiebe, 2017), appropriate social skills (Richmond, Beatty, & Dyba, 1985), or individuals' judgments about rewards and costs associated with future relationships (Sunnafrank, 1986, 1988, 1990). In addition to these interpersonal factors, individuals' willingness to communicate with others in intergroup interactions is also affected by group factors, such as one's social identity or pre-existing stereotypes (Harwood & Palomares, 2005). To a certain extent, individuals' willingness to communicate with others in intergroup or intercultural interactions reflects individuals' shared identities with the outgroup (Gaertner & Dovidio, 2000).

It is typical for each cultural group to have distinct communication practices due to different language features, accents, dialects, or slang within the same language, social norms, and cultural values (Kim, 2001). Hence intercultural communication is a bitter and sweet process in which individuals with different linguistic and socio-cultural backgrounds experience,

manage, and negotiate affection, bonding, and fulfilment in conjunction with stereotypes, uncertainty, anxiety, power differentials, and identity conflicts. Language and communication socially construct individuals' group memberships and evaluative standards, hence our perceptions of outgroup members in intercultural communication are largely linked with our linguistic cultural stereotypes (e.g., poor at English) of the outgroup (Aboud & Mendelson, 1996). Generally, shared language associated with appropriate communication skills promotes acceptance, whereas rejection and exclusion often stem from ineffective communication or social awkwardness caused by poor language skills (Richmond, Beatty, & Dyba, 1985; Zhang, 2010). By examining communication among different ethnic groups in the U.S., Zhang (2010) found that Asian Americans were often less accepted in intergroup interaction compared to other U.S. minority groups such as African Americans. As stereotypes affect individuals' willingness to interact, people are not as inclined to be friends with Asians when their perceptions and judgments about Asians are primarily aligned with the negative images portrayed by mass media (e.g., foreign, non-American, quiet, nerdy, and passive). Thus, extending prior research (e.g., Ruble & Zhang, 2012), it is worthwhile to explore whether or not people's preference to make friends or initiate communication is influenced by stereotype-relevant information they perceive in the mediated intercultural communication context.

Willingness to cooperate. Although willingness to communicate is the essential focus of most communication studies, willingness to cooperate is also an equivalently important construct measured by scholars across disciplines (Ayoko, 2016; Tran, Oh, & Choi, 2016). Scholars define cooperation as a process in which individuals, groups, or organizations work together toward a shared goal (Smith, Carroll, & Ashford, 1995). Thus, willingness to cooperate typically reflects individuals' intention to share information, enhance communication, and work together with

others to accomplish a mutual task (Campion, Medsker, & Higgs, 1993). Research on organizational communication has shown that employees' willingness to cooperate with other team members not only benefits interpersonal relationships among organizations, but also enhances the performance of the entire team (e.g., Beersma et al., 2003; Campion, Medsker, & Higgs, 1993). When team members cooperate with one another frequently, their performance as well as job satisfaction improves significantly (Campion et al., 1993). Recently, willingness to cooperate has become an important research topic for studies of higher education (Patel, 2007; Temkin & Evans, 1998). Scholars have found that gaining cooperative skills not only helps college students fulfill course requirements, it also equips students with useful professional skills after graduation (Kavanagh & Drennan, 2008; Rainsbury et al., 2002). As the number of foreign-born workers has increased during the past few years (Bureau of Labor Statistics, 2017), learning how to cooperate with those from diverse cultures seems both essential and necessary for U.S. college students.

Individuals' willingness to cooperate with others can be influenced by the stereotypes that they hold about one another. Prior scholars noted that "people are motivated to judge on a need to know basis, and in that respect may rely on stereotype-based judgment to decide whether or not to cooperate" (Dreu, Yzerbyt, & Leyens, 1995, p. 588). Individuals cooperate more when they perceive others in a positive way (Dreu, Yzerbyt, & Leyens, 1995). However, if the stereotypical images suggest that the target is as competitive and immoral rather than cooperative and honest, individuals are less willing to cooperate with the target (Dreu, Yzerbyt, & Leyens, 1995). Although stereotypes to some degree provide individuals with useful information on selecting cooperative partners, people should be cautious in stereotyping others. As interactions guided by negative stereotypes may result in mutual irritation and negative attitudes among

communicators, stereotyping can limit the opportunities for potential cooperation (Rubin, Pruitt, & Kim, 1994).

Communication Anxiety, Interpersonal Attractiveness, and Trust

Individuals' willingness to communicate and willingness to cooperate with others are two constructs that assess individuals' behavioral tendencies for future interactions. Research on intercultural communication also places great value on other emotional and relational factors that are influenced by ones' schematic perceptions (Anderson, Adams, & Plaut, 2008; Anderson & Narus, 1990; Greenland & Brown, 1999). For example, one such factor is communication anxiety or negative feelings experienced by individuals during intercultural interactions (Islam & Hewstone, 1993; Pettigrew & Tropp, 2008; Stephan & Stephan, 1985). Other studies have included the positive outcomes of intercultural encounters, such as the perceived interpersonal attractiveness (Pettigrew & Tropp, 2008; Schug, Yuki, Horikawa, & Takemura, 2009), and trust of others (Takahashi et al., 2008). As these factors actually evaluate individuals' affective responses or cognitive judgments derived from intercultural encounters, these variables are often seen as the underlying mechanisms influenced by ones' schematic perceptions (Anderson & Narus, 1984, 1990; Imamura & Zhang, 2014). In order to provide a more complete picture of intergroup and intercultural contact outcomes, the current project investigates the role of both negative (i.e., communication anxiety) and positive (i.e., interpersonal attractiveness and trust) factors influenced by the typical stereotypes of Chinese international students in addition to U.S. students' willingness to communicate/ cooperate with the Chinese target.

Communication anxiety. Stephan, Stephan, and Gudykunst (1999) define communication anxiety as a state "produced by stress combined with the perception of a situation as personally dangerous or threatening" (p. 613). Thus, intergroup anxiety refers to the

affective state that individuals experience or anticipate while communicating with outgroup members (Gudykunst, 1995; Gudykunst & Nishida, 2001; Stephan & Stephan, 1985). As the anxious feelings that communicators experience during interactions may impact communication effectiveness and impede future relationship development, the importance of communication anxiety is addressed in earlier theoretical frameworks regarding intergroup contact, such as intergroup contact theory (Pettigrew, 1998) and anxiety/uncertainty management theory (Gudykunst, 1995). Intergroup contact theory (Pettigrew, 1998) argues that positive contact experiences with outgroups may help ingroup members decrease intergroup anxiety, and therefore lead to positive intergroup attitudes. In addition, anxiety/uncertainty management theory (Gudykunst, 1995) posits that individuals in intercultural interactions are required to manage and maintain their anxiety level between minimum and maximum thresholds to make effective communication possible. Both theories emphasize the necessity of anxiety reduction for effective intercultural communication. By examining interactions between Americans and Chinese, Imamura and Zhang (2014) found that American participants experienced less communication anxiety with assimilated and integrated Chinese students, and thus judged them more positively and were more willing to communicate with them in comparison to separated and marginalized Chinese students. Therefore, communication anxiety could be an important outcome variable influenced by stereotypical representations of the Chinese target student.

Interpersonal attractiveness. In addition to communication anxiety, interpersonal attractiveness is another variable associated with one's stereotypical perceptions. Interpersonal attractiveness is generally evaluated by scholars from three dimensions: physical, social, and task (McCroskey & McCain, 1974). As physical attractiveness is not related to the focus of the present study, only the last two dimensions of interpersonal attractiveness are examined. Social

attractiveness is defined as a person's attractiveness as a friend (McCroskey & McCain, 1974; Walther et al., 2008). Studies have found that individuals' social attractiveness toward outgroup members are influenced by their stereotypical perceptions of outgroups in intercultural interactions (Montgomery & Zhang, 2018). For example, Montgomery and Zhang (2018) examined the effects of accent stereotyping on native English speakers' perceptions of and willingness to communicate with the nonnative speaker (i.e., Hispanic/Latino speaker). Their findings indicated that when certain negative accent stereotypes about Hispanic/Latino were activated, native English speakers tended to perceive the moderately accented speaker as less socially attractive.

Although social attractiveness is the primary evaluative dimension for interpersonal attractiveness in most communication studies (Imamura & Zhang, 2014; Liu, Zhang, & Wiebe, 2017), task attractiveness is also important for intercultural relationship development. Unlike social attractiveness, task attractiveness reflects the degree to which a target is seen as a competent or valued partner to work with (McCroskey & McCain, 1974; Rubin, Palmgree, & Sypher, 1991; Walther, 2008). Studies have found that individuals place great value on features such as honesty, kindness, and intelligence in selecting task partners (Buss, 1989; Fletcher, Simpson, & Thomas, 2000), and in forming impressions of others (Anderson, 1968; Toma, Yzerbyt, & Corneille, 2012). Even children are more attracted to those who demonstrated task competence under experimental condition (Levine, Snyder, & Mendez-Caratini, 1982). As stereotypes could be perceived by observers as having different levels of social and task attractiveness (Fiske et al., 2002), it is possible that U.S. students' social and task attraction toward a Chinese target would vary in terms of the stereotypical information about that target.

Trust. In addition to communication anxiety, social, and task attractiveness, the current study also aims to explore the relationship between trust and individuals' stereotypical perceptions. Trust is defined as "a willingness to rely on an exchange partner in whom one has confidence" (Moorman, Zaltman, & Deshpande, 1992, p. 315). In line with this definition, the concept of trust could be viewed as both a belief in (Moorman, Zaltman, & Deshpande, 1992) and a behavioral reliance on others' expertise, dependability, or intentionality (Coleman, 1990; Moorman, Zaltman, & Deshpande, 1992). Communication scholars often consider trust as a feature or a determinant of communication and relationship quality (Anderson & Weitz, 1990; Moorman, Zaltman, & Deshpande, 1992). For individuals in the workplace, interpersonal trust is the underlying motivation for cooperation (Lee, Stajkovic, & Cho, 2011). Studies have emphasized the potential relationship between one's stereotypical perceptions and perceived trust of others (Oleszkiewicz & Lachowicz-Tabaczek, 2016; Schwieren & Sutter 2008). For instance, Oleszkiewicz and Lachowicz-Tabaczek (2016) found that individuals tended to perceive trust differently when communicating with supervisors and subordinates in the workplace. For instance, warmth expressed by supervisors resulted in higher levels of trust than warmth expressed by subordinates due to different expectations for supervisors and subordinates. Hence, exposure to positive or negative stereotypes might trigger different levels of trust.

Guided by Ruble and Zhang's research (2012; 2013), the current project will explore whether self-stereotyping statements on a Chinese international student's Facebook page influence U.S. domestic students' affective responses to (i.e., communication anxiety), perceptions of (i.e., trust, social, and task attractiveness), and their willingness to communicate/cooperate with the Chinese target. Five primary stereotypes of Chinese international students held by Americans such as smart/hardworking, shy/not social, poor

English/not assimilated, nice/friendly, and oblivious/annoying are reported in prior literature (e.g., Ruble & Zhang, 2013; Zhang, 2015). Among the three negative stereotypes (i.e., shy/not social, poor English/not assimilated, and oblivious/annoying), poor English or unassimilated sometimes is the source or underlying reason to explain why Chinese students are perceived as shy or socially awkward (Ruble & Zhang, 2013). Hence, they are combined as one major stereotype as poor English/not assimilated in this study. As such, four of five major stereotypes about Chinese international students are examined in this study, including smart/hardworking, nice/friendly, poor English/unassimilated, and oblivious/annoying (Ruble & Zhang, 2013). Smart/hardworking and nice/friendly depict Chinese international students positively, while poor English/unassimilated and oblivious/annoying reflect the negative images of Chinese international students. Based on the discussion above, the following hypothesis will be tested:

> **Hypothesis 1**: The valence of the Chinese target's stereotypical self-generated posts (positive vs. negative) on Facebook will affect participants' anxiety toward the target, perceptions of the target (i.e., trust, social attractiveness, and task attractiveness), and their willingness to communicate and willingness to cooperate with the target. Specifically, participants in the positive self-stereotyping condition (i.e., hardworking/smart and nice/friendly) will provide more positive ratings about the target (i.e., less anxiety toward and more trust of the target, perceive the target as more attractive, and are more willing to communicate and cooperate with the target) than participants in the negative self-stereotyping condition (i.e., oblivious/annoying and poor English/not assimilated).

Warranting Theory

In addition to the information generated by the profile owners, individuals' perceptions of others online are also influenced by information they obtain from other sources. Warranting theory (Walther & Parks, 2002) argues that the less the information is seen as controlled by the target, the more weight or warrant it will carry for others in forming impressions. This theory was proposed in an attempt to investigate the objectivity and veracity of information appearing online. In the online environment, a warrant could be anything from a picture posted by the profile owner to a comment left by the owner's friend. Typically, a warrant is composed of three components—warrant credibility, perceived warrant value, and warrant diagnosticity (Hall, 2014). *Warrant credibility* refers to the degree to which the perceiver believes that the content of the information is immune to manipulation by the target to which it refers (e.g., person, company or organization). *Perceived warrant value* reflects the extent to which an observer relies on certain warrants or cues to make judgments about the target. If a warrant or a cue accurately predicts the targets' personal traits and meanwhile is utilized by the perceivers to make inferences, it is called *warrant diagnosticity*.

Individuals typically rely on three types of online information to form impressions of others: self-generated, other-generated, and system-generated information. *Self-generated information* represents information produced by the targets themselves, such as owners' profiles, pictures, or statuses online. To the contrary, *other-generated information* deals with information provided by the third-party, such as friends' comments or others' reviews about the targets. In addition, the websites may automatically provide its users with *system-generated information* (e.g., number of friends of the target), which also affects the observers' perceptions.

With an expanding number of online websites, warranting theory has been applied to settings such as online dating sites, online review sites, or SNSs (Walther, 2011). Studies have

found that behaviors of a third-party played vital roles in the observers' perceptions (Tong et al., 2008; Walther et al., 2008). For example, Walther (2008) and colleagues argued that positive statements made by one's Facebook friends increased the perceived attractiveness and credibility of the profile owner. Likewise, Tong et al.'s study (2008) examined a nonlinear relationship between ones' Facebook friends' number and their social attractiveness perceived by others. The researchers found that those with more Facebook friends were generally perceived as more attractive and popular, while this relationship may become negative when the friends' number increased excessively.

Although all types of information need to be combined in shaping individuals' impressions online, the warranting principles suggest that other-generated and system-generated information are more reliable and trustworthy than self-generated ones. As observers may perceive other-generated information as less controllable by the target, they may consider this source containing more warrant credibility. In a study examining customers' reviews about restaurants, DeAndrea et al. (2015) found that individuals tended to go to restaurants with positive reviews when they believed the reviews were posted by the actual customers rather than the business owners. Likewise, based on the users' interaction on a Dutch SNS (i.e. Hyves), Utz (2010) found that observers relied more on other-generated information to predict the communal traits of the profile owner (e.g. friendly, reliable or unselfish), since these traits were usually evaluated by the owner's relationships with others. Unlike self-profitable traits such as competence or ambition, communal traits are usually beneficial to others. Thus, individuals' number of friends and these friends' perceived extraversion may strongly affect the profile owner's rated attractiveness and popularity on SNSs.

Nevertheless, the perceived warrant value could be affected by the particular norms of an online community. In some cases, the users may allow some levels of enhancement and embellishment about self-generated information. For example, by interviewing users of several online dating websites, Ellison and colleagues (2011) found that online daters usually had higher levels of acceptance to the exaggerated information presented on SNSs, because they assumed that all the users in the community were doing so. From this perspective, if an online community establishes some communal common grounds about what kind of information can be acceptable, the sources with less warrant credibility may still be trustworthy and be used to help individuals form impressions online.

Even so, since individuals seem to have more time carefully constructing their images online, information could be easily misrepresented and distorted in the CMC environment. Therefore, credible warrants, especially other-generated information is especially helpful for us to form accurate impressions of others. Guided by warranting theory, the current project also aims to explore how stereotype-relevant statements made by the Chinese target's Facebook friends (i.e., positive or negative) influence U.S. students' impression and willingness to interact. Based on the above discussion, another four hypotheses are proposed, examining the warranting effect:

> **Hypothesis 2**: The valence of stereotypical other-generated posts about the Chinese target (positive vs. negative) on Facebook will affect participants' anxiety toward the target, perceptions of the target (i.e., trust, social attractiveness, and task attractiveness), and their willingness to communicate and willingness to cooperate with the target. Specifically, participants who read the positive other-generated posts about the target (i.e., hardworking/smart and nice/friendly) will have less anxiety toward and more trust

of the target, perceive the target as more attractive, and are more willing to communicate and cooperate with the target than participants who were in the negative condition (i.e., oblivious/annoying and poor English/not assimilated).

Hypothesis 3: Participants' anxiety toward the target, perceptions of the target (i.e., trust, social attractiveness, and task attractiveness), and their willingness to communicate and willingness to cooperate with the Chinese target will vary according to stereotypical self-generated and other-generated posts about the target on Facebook. Specifically, participants in the double positive condition (i.e., who read both positive self-generated and positive other-generated stereotyping posts) will be most positive about the target as measured by the same dependent variables, followed by participants in the conditions with mixed message (i.e., who read either self-positive and other-negative or self-negative and other-positive), with participants in the double negative condition (i.e., who read both negative self-generated and negative other-generated posts) being the least positive about the target.

Hypothesis 4: When stereotypical other-generated posts are present and disconfirm the target's self-generated posts on Facebook, the effects of self-generated posts on the dependent variables (i.e., anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate) will be significantly reduced by the stereotypical other-generated posts. Specifically, a) the positive effect of the target's self-generated posts will be perceived less positive when accompanied by negative other-generated posts, and b) the negative effect of self-generated posts will be perceived less negative with positive other-generated posts.

Hypothesis 5: When the target's stereotypical self-generated posts are present and disconfirm other-generated posts on Facebook, the target's self-generated posts will not significantly change the effects of other-generated posts on the dependent variables (i.e., anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate).

Walther (Walther et al., 2009) further noted that the warranting effect was more salient when self-generated messages were inconsistent with other-generated ones. However, prior studies have not paid adequate scholarly attention to examine the role of warranting theory when self-generated and other-generated messages are consistent with each other or convey the same valence in impression formation. In addition to the warranting effect, prior literature also emphasized the essential role of the additive effect (Walther et al., 2009) and averaging effect (Anderson, 1965) in the process of impression formation. For example, in a study evaluating individuals' perceptions of another person's extroversion and introversion on Facebook, Walther (Walther et al., 2009) found that the more sources suggested extroversion/introversion, the more extroverted/introverted the target was perceived. On the other hand, when sources of the information were unspecified, individuals tended to average the personality traits more than adding them in impression formation of the target (Anderson, 1965). Extending prior literature, the current study proposes the following two research questions to examine impression formation in situations in which other-generated comments and self-descriptions are consistent with each other:

Research Question 1: When other-generated wall posts are consistent with the target's self-generated posts, will participants in the double positive (i.e., both self-generated and

other-generated posts are positive), and the double negative condition (i.e., both self-generated and other-generated posts are negative) perceive the target more positively or negatively in comparison to their counterparts in the condition only with positive or negative self-generated posts respectively?

Research Question 2: When other-generated posts are consistent with the target's self-generated posts, will participants in the double positive (i.e., both self-generated and other-generated posts are positive), and the double negative condition (i.e., both self-generated and other-generated posts are negative) perceive the target more positively or negatively in comparison to their counterparts in the condition only with positive or negative other-generated posts respectively?

Summary of the Hypotheses and Research Questions

Hypothesis 1: The valence of the Chinese target's stereotypical self-generated posts (positive vs. negative) on Facebook will affect participants' anxiety toward the target, perceptions of the target (i.e., trust, social attractiveness, and task attractiveness), and their willingness to communicate and willingness to cooperate with the target. Specifically, participants in the positive self-stereotyping condition (i.e., hardworking/smart and nice/friendly) will provide more positive ratings about the target (i.e., less anxiety toward and more trust of the target, perceive the target as more attractive, and are more willing to communicate and cooperate with the target) than participants in the negative self-stereotyping condition (i.e., oblivious/annoying and poor English/not assimilated).

Hypothesis 2: The valence of stereotypical other-generated posts about the Chinese target (positive vs. negative) on Facebook will affect participants' anxiety toward the target, perceptions of the target (i.e., trust, social attractiveness, and task attractiveness), and their willingness to communicate and willingness to cooperate with the target. Specifically, participants who read the positive other-generated posts about the target (i.e., hardworking/smart and nice/friendly) will have less anxiety toward and more trust of the target, perceive the target as more attractive, and are more willing to communicate and cooperate with the target than participants who were in the negative condition (i.e., oblivious/annoying and poor English/not assimilated).

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Hypothesis 4: When stereotypical other-generated posts are present and disconfirm the target's self-generated posts on Facebook, the effects of self-generated posts on the dependent variables (i.e., anxiety, trust, social attractiveness, task attractiveness,

willingness to communicate, and willingness to cooperate) will be significantly reduced by the stereotypical other-generated posts. Specifically, a) the positive effect of the target's self-generated posts will be perceived less positive when accompanied by negative other-generated posts, and b) the negative effect of self-generated posts will be perceived less negative with positive other-generated posts.

Hypothesis 5: When the target's stereotypical self-generated posts are present and disconfirm other-generated posts on Facebook, the target's self-generated posts will not significantly change the effects of other-generated posts on the dependent variables (i.e., anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate).

Research Question 1: When other-generated wall posts are consistent with the target's self-generated posts, will participants in the double positive (i.e., both self-generated and other-generated posts are positive), and the double negative condition (i.e., both self-generated and other-generated posts are negative) perceive the target more positively or negatively in comparison to their counterparts in the condition only with positive or negative self-generated posts respectively?

Research Question 2: When other-generated posts are consistent with the target's self-generated posts, will participants in the double positive (i.e., both self-generated and other-generated posts are positive), and the double negative condition (i.e., both self-generated and other-generated posts are negative) perceive the target more positively or negatively in comparison to their counterparts in the condition only with positive or negative other-generated posts respectively?

CHAPTER THREE: METHOD

This experimental study examines the effects of exposure to the Chinese target's Facebook page with stereotypical self-generated and other-generated posts (i.e. experimental conditions) on U.S. participants' perceived anxiety, trust, social and task attractiveness toward, and their willingness to communicate/cooperate with the target. In order to test the hypotheses and answer the research questions, eight experimental stimuli were generated. Four conditions were created to examine the main effects of the two independent variables respectively (i.e., self-generated: positive vs. negative; and other-generated statements: positive vs. negative). Another four conditions were created to examine the combination/interaction effects of both self-generated and other-generated posts (i.e., the condition with positive self-generated and positive other-generated posts, the condition with negative self-generated and positive other-generated posts, the condition with positive self-generated and negative other-generated posts, and the condition with negative self-generated and negative other-generated posts). A pilot study was conducted before the main study to ensure the validity of the manipulation of the eight experimental stimuli. The detailed procedures of the pilot study and the main study are provided in this chapter.

Pilot 1

After IRB approval and the required prospectus meeting with the graduate committee, Pilot 1 was conducted for three purposes. First, the pilot study attempted to evaluate the clarity of the procedures and materials used in this study. Second, the pilot study helped the researcher check the validity of the study, especially the manipulation of the experimental stimuli (e.g., whether the manipulation of the independent variables was understood as intended). Third, the pilot study examined the reliability of the major measurements used in this study.

Participants

Participants in pilot 1 were U.S. domestic students at a large mid-Western university. Participants were recruited through communication courses and were compensated with extra credit for their participation (N = 113, 74 females, 39 males, M age = 19.83, SD = 2.71, age range = 18-41). Of the participants, 96 (85%) were White/Caucasian, 5 (4%) were Hispanic/Latino, 2 (2%) were African Americans, 7 (6 %) were Asian/Pacific Islanders participants, and 3 (3%) were others.

Procedures

Participants were asked to fill out an online questionnaire. They first read an informed consent form and filled out some demographic information about themselves (i.e., age, gender, ethnicity, and years of education). After that, participants were directed to a paragraph asking them to imagine a situation where they were going to have a Chinese international student as their roommate for a new semester (see Appendix A). Then, participants were informed that they were going to visit this Chinese student's Facebook page to acquire more information. Five questions were asked following the description of the situation to confirm participants' accurate understanding of the context. For example, participants were asked to choose True or False for questions, such as "You were notified by the housing department that you were going to have a Chinese international student as your roommate," "Your Chinese roommate is named Ming Chen," "Your Chinese roommate (Ming Chen) is a female/male," "You can visit the Facebook page of Ming Chen," or "You must share a room with the international student from China recommended." In general, the results indicated that all participants (N=115) answered 4 of the 5 questions correctly. However, some participants (N = 32) got wrong (i.e., they answered 'True') on the fifth question "You must share a room with the Chinese international student

recommended". Conversations with a few undergraduate students about their understanding of the question revealed that this question was confusing, because the original description did not provide enough information related to this question. As the first four questions are adequate to achieve the main purpose of the current study, this question was not included in the main study.

In the next step, participants were randomly assigned to one of the eight conditions (see Table 1 below) with an approximately balanced number. For example, 15 participants were assigned to the first condition (i.e., positive self-generated statements only), 15 participants were assigned to the second condition (i.e., negative self-generated statements only), 13 participants were assigned to the third condition (i.e., positive other-generated statements only), 13 participants were assigned to the forth condition (i.e., negative other-generated statements only), 15 participants were assigned to the fifth condition (i.e., positive self-generated and positive other-generated statements), 14 participants were assigned to the sixth condition (i.e., positive self-generated and negative other-generated statements), 13 participants were assigned to the seventh condition (i.e., negative self-generated and positive other-generated statements), and 15 participants were assigned to the eighth condition (i.e., negative self-generated and negative other-generated statements,; see Table 1 below and also Appendix B).

Table 1

Eight Experimental Conditions in Pilot 1.

	Positive self-generated posts	Negative self-generated posts	The condition with other-generated posts only
Positive other-generated posts	Condition 5 (15 participants)	Condition 7 (13 participants)	Condition 3 (13 participants)
Negative other-generated posts	Condition 6 (14 participants)	Condition 8 (15 participants)	Condition 4 (13 participants)
The condition with the target's self-generated posts only	Condition 1 (15 participants)	Condition 2 (15 participants)	

In each condition, participants viewed one of the mock-up Facebook pages and answered questions afterwards. A manipulation check was conducted after participants viewed the mock-up Facebook page to show their understanding of the information presented (see the manipulation check below). After that, participants were directed to the questions relevant to the dependent variables. To answer the questions, participants were required to imagine a situation in which they were going to work with their potential Chinese roommate (i.e., the Chinese target) on a group project for a mandatory class through the whole semester. Based on this scenario, participants were asked to answer questions related to the dependent variables, such as whether they were willing or unwilling to communicate/ cooperate with the Chinese target. The whole process was anonymous.

Stimuli

The experimental stimuli were different mock-up Facebook pages of Chinese international students. Eight stimuli were developed based on the Chinese target's self-generated and other-generated wall posts on the target's Facebook page. Stereotypes presented through *self-generated wall posts* were manipulated through the statements posted by the Chinese target (i.e., positive vs. negative). To control for the influence of gender, a gender-neutral Chinese name (i.e., Ming Chen) was used on all mock-up profiles. Meanwhile, participants were informed that they were of the same gender as the Chinese target. Since prior study indicated that observers' perceptions of Facebook profile owners could be influenced by the physical attractiveness of the profile owners' pictures (Walther et al., 2008), the Chinese target's profile picture was blurred for confounding effects. Participants were informed that the profile owner's picture was blurred to protect the privacy of the individual pictured. Likewise, stereotypes represented through *other-generated posts* were manipulated through the statements made by the Chinese target's Facebook friends (i.e., positive vs. negative). In line with the name used by the Chinese target, two gender-neutral American names (i.e., Taylor Jordan & Chris West) were used to represent the target's Facebook friends. The profile pictures of Taylor Jordan and Chris West were also blurred to avoid potential interference.

Manipulation of the target's self-generated posts. The Chinese target's stereotypical self-generated wall posts were manipulated through two versions of scripts representing positive vs. negative self-descriptions respectively. The profile with positive self-stereotyping statements was represented by the primary traits depicting the *positive stereotypes* of Chinese international students such as smart/hardworking and nice/friendly. As such, two independent statements were posted by Ming Chen (the Chinese target) on the Facebook profile. The first statement was written: "Got an A for this math test! I know I am smart. But working hard is important too.

Spent a lot of time in the library, totally worth it now because that made the test super easy!" This post combined contained the primary traits representing the smart/ hardworking stereotype in prior study, such as being good at math and science, smart, hardworking, studious, and intelligent (Ruble & Zhang, 2013). The second statement posted describes Ming Chen using the primary traits of the nice/friendly stereotype (e.g., nice, kind, polite, and friendly; Ruble & Zhang, 2013). Specifically, Ming Chen wrote that "Be friendly to others. Treat everyone with politeness, even those who are rude to you. Not because they are nice but because you are nice". The two statements together contained 62 words (See Appendix C).

Likewise, the profile portraying the Chinese international student negatively was represented through the main traits describing the *negative stereotypes* of Chinese students such as oblivious/annoying and poor English/not assimilated. Consistent with the positive scenarios, two statements representing the negative stereotypes were posted by Ming Chen on the Facebook profile. Ming Chen wrote in the first statement that "Always met people saying I was talking too loudly. I am the life of the party. And I love a good time. If that bothers you, too bad, find another party". This statement consists of the primary traits representing oblivious/annoying in a prior study (e.g.., annoying, loud, oblivious, conceited, and rude; Ruble & Zhang, 2013). The second statement described the primary traits defining the stereotype of bad English/not assimilated (e.g., not being assimilated, always with groups of other Chinese students, exclusive/cliquey, and bad at English; Ruble & Zhang, 2013). Specifically, this statement was "Always feel happy with my Chinese friends. It's so easier than around with Americans. I know I speak bad English! Feels great to speak Chinese and be around my culture again". The negative statements together had 63 words (See Appendix C).

Manipulation of other-generated wall posts. Other-generated stereotype-relevant wall posts were manipulated through posts made by the Chinese target's Facebook friends (i.e., positive vs. negative). For the condition with *positive other-generated posts*, two independent statements were posted by the target's Facebook friends Taylor Jordan and Chris West respectively. In the first statement, Taylor Jordan wrote "Hey, I met you in the library yesterday again. Do you really need to work that hard? Plus, big congrats on your math test. I heard you got an A!" In the second statement, the target's another friend Chris West said "Hey Ming, thanks so much for spending all that extra time helping me study for the test. You're such a good person. I am glad to have a friend like you!" The first positive statement described the Chinese target as hardworking/smart and the second positive statement was consistent with the stereotype of nice/friendly. Positive other-generated statements together contained 61 words (See Appendix C for details).

For the condition with *negative other-generated wall posts*, the target's Facebook friend Taylor Jordan left the comment, "Hey Ming, just saw you in the library. It's the quiet zone! You were being so loud the whole library can hear you. Some of us were actually trying to get our work done!" The second statement posted by another friend of Ming Chen, Chris West, stated "I saw you in the bar with other Chinese yesterday. It seems you only hang out with Chinese friends. Maybe you should hang out with Americans for a change?" The first negative statement depicted the negative stereotype of Chinese students for being oblivious/annoying, and the second one emphasized the stereotype of poor English/not assimilated. Other-generated statements in this condition contained 63 words (See Appendix C).

Manipulation of both self-generated and other-generated posts (four conditions): In order to test warranting theory, another four additional conditions were created containing both

the target's self-generated and other-generated posts (i.e., the condition with positive self-generated and positive other-generated posts; the condition with positive self-generated and negative other-generated posts; the condition with negative self-generated and positive other-generated posts; and the condition with negative self-generated and negative other-generated posts). The specific scripts of self-generated (positive vs. negative) and other-generated posts (positive vs. negative) were the same as discussed above. Thus, eight experimental stimuli were developed in total.

Manipulation Check

Manipulation check for the target's self-generated posts (positive vs. negative). In order to check whether the manipulation of stereotypical self-generated posts (positive vs. negative) were valid or not, participants in each of the two conditions were instructed to provide a rating on a 7-point semantic differential scale (1 = extremely negative, 7 = extremely positive) to indicate whether they thought the two statements made by Ming Chen were in general positive or negative. In the condition only with the target's positive self-generated posts, one-sample *t*-test indicated that participants' general perception of Ming Chen's statements was significantly above the mid-point 4, $t(14) = 12.65$, $p < .001$, $M = 6.67$, $SD = .82$, indicating the target's self-generated posts were positively perceived. Similarly, in the condition only with the target's negative self-generated posts, one-sample *t*-test indicated that participants' perception of Ming Chen's statements was significantly below the mid-point 4, $t(14) = -3.42$, $p = .004$, $M = 3.00$, $SD = 1.13$, suggesting that participants perceived the target's self-generated posts negatively. Thus, participants understood the conditions as intended, indicating successful manipulation of the target's self-generated posts.

In addition, participants were also asked to provide ratings that best reflected their agreement on the four statements measuring the presence of the four different types of stereotypes manipulated in the current study. Specifically, participants in each condition were asked to rate on four 7-point Likert scales (e.g., 1 = strongly disagree, 7 = strongly agree) whether or not Ming Chen described him/herself as smart/hardworking, nice/friendly, oblivious/annoying or bad English/not assimilated respectively (see Appendix D). Participants in the condition with positive self-generated posts evaluated the four dimensions in the following way: smart/hardworking (M = 6.80, SD = .41), nice/friendly (M = 6.07, SD = .88), oblivious/annoying (M = 1.27, SD = .46), and bad English/not assimilated (M = 1.80, SD = 1.21). As higher numbers indicated that a specific stereotype was presented and perceived, positive traits were rated higher than the negative ones in this condition. To the contrary, negative traits had higher ratings than positive ones in the condition only with negative self-descriptions (smart/hardworking: M = 2.47, SD = 1.69; nice/friendly: M = 3.13, SD = 1.30; oblivious/annoying: M = 4.07, SD = 1.67; and bad English/not assimilated: M = 6.27, SD = .88). The results above have provided evidence for the successful manipulation of the valence and the specific stereotypes of the target's self-generated posts.

Manipulation check for other-generated posts (positive vs. negative). Consistent with the manipulation check above, participants in the conditions with other-generated posts only (positive vs. negative) were instructed to provide a rating on a 7-point semantic differential scale (1 = extremely negative, 7 = extremely positive) to indicate whether they thought the two posts made by Ming Chen's Facebook friends Taylor Jordan and Chris West were in general positive or negative. One-sample t-test in the condition only with positive other-generated posts indicated that participants' perception of Taylor Jordan and Chris West' comments was significantly above

the mid-point 4, $M = 6.54$, $SD = .52$, $t(12) = 17.64$, $p < .001$, thus these two posts were positively perceived. To the contrary, one-sample *t*-test in the condition only with negative other-generated posts indicated that participants rated the friends' comments significantly below the mid-point 4, $M = 1.62$, $SD = .51$, $t\ (12) = -16.98$, $p < .001$. Thus, the other-generated posts were negatively perceived in this condition.

Consistent with the manipulation check for the target's self-generated posts, participants in the conditions with other-generated posts (positive vs. negative) were asked to provide ratings that best reflected their agreement on the statements measuring the presence of four different stereotypes. For example, participants answered on four 7-point Likert scales (e.g., 1 = strongly disagree, 7 = strongly agree) whether they thought Ming Chen was smart/hardworking, nice/friendly, oblivious/annoying and bad English/not assimilated based on the statements made by Taylor Jordan and Chris West (see Appendix D). In the condition with positive other-generated posts only, the four stereotypes were evaluated in the following way: smart/hardworking ($M = 6.69$, $SD = .63$), nice/friendly ($M = 6.31$, $SD = .95$), oblivious/annoying ($M = 1.31$, $SD = .63$), and bad English/not assimilated ($M = 1.91$, $SD = 1.12$). For the condition with negative other-generated posts only, the four stereotypes were assessed as below: smart/hardworking ($M = 2.38$, $SD = .77$), nice/friendly ($M = 2.92$, $SD = 1.12$), oblivious/annoying ($M = 5.00$, $SD = 1.29$), and bad English/not assimilated ($M = 4.00$, $SD = 1.53$). Higher number indicated that a specific stereotype was perceived. Thus, participants understood the conditions as intended, indicating successful manipulation of other-generated posts.

Realism Check

In addition to the manipulation checks, realism checks were conducted to evaluate the realism of the experimental stimuli. Participants in the conditions only with self-generated or other-generated posts were asked to indicate whether they thought the posts/statements made by Ming Chen or Ming Chen's Facebook friends were realistic or not on a 7-point Likert scale (1= Not at all, 7 = Extremely). Three items developed from Zhang, Harwood, and Hummert (2005) were used in the realism check for the target's self-generated posts (positive self-descriptions: α = .73; negative self-descriptions: α = .70; See Appendix D). A one-sample *t*-test indicated that participants in the condition only with the target's positive self-generated posts rated the stimuli significantly above the mid-point 4, $M = 5.38$, $SD = .73$, $t(14) = 7.28$, $p < .001$. Thus, the target's positive self-generated posts were considered as realistic and believable by most participants. Participants in the condition only with the target's negative self-generated posts rated the experimental stimuli below the mid-point 4, $M = 3.51$, $SD = 1.39$, $t(14) = -1.36$, $p = .195$. The nonsignificant result indicated that the manipulation of negative s self-generated posts was neither realistic nor unrealistic, however, was less realistic than other conditions. Actually, the nonsignificant result could result from the small sample size, since participants in the main study rated the condition only with the target's negative self-generated posts significantly above the mid-point 4, $M = 4.39$, $SD = 1.34$, $t(70) = 2.42$, $p = .018$ (see the main study). Thus, the overall pattern may indicate that negative self-generated posts were perceived as believable by most participants.

The same three items were used to check the realism of the comments made by Ming Chen's Facebook friends, Taylor Jordan & Chris West (positive other-generated comments: α = .95; negative other-generated comments: α = .78; see Appendix D). Participants in the conditions only with positive or negative other-generated posts were asked to indicate whether

they thought the posts made by Taylor Jordan & Chris West were realistic or not on a 7-point Likert scale (1= Not at all, 7 = Extremely). One-sample *t*-test indicated that participants in the condition only with the target's positive other-generated posts rated the stimuli significantly above the mid-point 4, $M = 4.79$, $SD = 1.11$, $t(12) = 2.58$, $p = .024$. Thus, positive other-generated posts were considered as realistic and believable by most participants. To the contrary, participants in the condition only with negative other-generated posts rated the experimental stimuli significantly below the mid-point 4, $M = 2.95$, $SD = 1.39$, $t(12) = -2.72$, $p = .019$, indicating that some participants may think negative other-generated posts as less believable.

Therefore, three more questions were added in the main study to address the nature of negative messages. Specifically, participants in the main study were required to answer three Yes/No questions about whether or not they have ever observed negative messages on Facebook (see Appendix E, p.149). For example, participants were asked "Have you ever received negative comments or unpleasant messages about yourself on your Facebook profile (e.g., living style, behavior, habit, and so on)," "Have you ever seen someone post negative messages about themselves on Facebook (e.g., living style, behavior, habit, and so on)", and "Have you ever seen someone leave negative comments on others' Facebook posts (e.g., living style, behavior, habit, and so on)?" These three questions intended to evaluate the frequency of negative messages being observed on Facebook and hence added the validity of manipulation.

Measures

Communication anxiety. Nine items ($\alpha = .90$) adapted from Stephan and Stephan's intergroup anxiety scale (1985) were used to measure participants' communication anxiety when they encounter a situation to interact with the Chinese target (e.g. "I may feel anxious," "I may

feel awkward," or "I may feel defensive"). Participants were required to answer these questions on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Trust. Eight items (α = .97) adapted from Oleszkiewicz and Lachowicz-Tabaczek (2016) and Moorman et al. (1992) were used to assess participants' trust when given an opportunity to work with the Chinese target after viewing the Facebook profile (e.g. "I could trust Ming Chen to get our work done," "Ming Chen will not let me down," or "Ming Chen is reliable"). Item eight (i.e. I don't trust Ming Chen) was negatively worded and was reversed back in data analysis. Participants were required to answer these questions on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree). The scale used in the present study was developed based on prior literature, four of which from Oleszkiewicz and Lachowicz-Tabaczek (2016) and the rest from Moorman et al. (1992). Oleszkiewicz and Lachowicz-Tabaczek's (2016) scale contains five items (i.e., "I could trust this person," "This person wouldn't let me down," "I think this person is reliable," "In a difficult situation, I could rely on such person," and "I think this person is loyal to others"). As the last item "I think this person is loyal to others" did not relate to the context of the current study, this item was removed from the current scale. In addition, the current study adapted another four items (Moorman et al., 1992; i.e., "If I were absent from a group meeting, I would be confident in Ming Chen's ability to make decisions without my involvement," "If I were unable to monitor Ming Chen's work, I would be willing to trust Ming Chen to get the job done right," "I trust Ming Chen to do things I can't do by myself," and "I do not trust Ming Chen." The original measure contains five items and one item was deleted from the present study to make the scale relevant to the context.

Social attractiveness. Six items (α = .88) adapted from Imamura and Zhang (2014) were used to measure participants' perceptions about socializing with the Chinese target after viewing

the Facebook profile (e.g. “I think Ming Chen and I could be friends,” “Ming Chen would be pleasant to be around,” or “Ming Chen would be easy to get along with”; also see McCroskey et al., 2006). Participants were required to answer these questions on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree). The current study adapted all the six items in Imamura and Zhang’s (2014) measure of social attractiveness. One item (i.e., Ming Chen and I could never establish a friendship with each other) was negatively worded and was reversed back in data analysis. However, if the reversed item was deleted, the alpha value increased to .92. Thus, the negative worded item was deleted in the main study to achieve better reliability.

Task attractiveness. Five items (α = .92) adapted from McCroskey and McCain (1974) were used to measure whether or not participants consider the Chinese target as a valued and respected partner to work with after viewing the Facebook profile (e.g. “Ming Chen is capable to get the job done,” “I could get most things accomplished with Ming Chen”, or “Ming Chen would be an efficient problem solver”; also see Walther et al., 2008). McCroskey and McCain (1974)’s task attractiveness scale contains five items to evaluate individuals’ task attractiveness to others, three of which were negatively worded (i.e., He is probably a typical goof-off when assigned a job to do; I couldn’t get anything accomplished with him; He wouldn’t be a poor problem solver). Participants were required to answer questions on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Willingness to communicate. Five items (α = .96) adapted from Imamura and Zhang (2014) were used to measure participants’ willingness to talk or initiate conversations with the Chinese target after viewing the Facebook profile (e.g. “I would like to talk with my potential roommate,” “I would like to initiate conversations with my potential roommate,” or “I would like to chat with my potential roommate”; also see McCroskey & Richmond, 1987). Imamura and

Zhang (2014)'s scale on willingness to communicate includes four items in total. The current study added a negatively worded item to help participants pay more attention when they answer questions (i.e., I don't want to talk with Ming Chen). This item was reversed back in data analysis. Participants were required to respond on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Willingness to cooperate. Five items (α = .52) adapted from Scott, Bishop, and Chen (2003) were used to measure participants' willingness to cooperate with the Chinese target after viewing the Facebook profile (e.g. "I am willing to cooperate with my potential roommate to get the group project done," "I am willing to share information with my potential roommate about the group project," or "I am willing to enhance communication with my potential roommate about the group project"). The original measure consists of five items in total. The current study adapted all the five items and made them more fit to the context of this study. Participants were required to answer these questions on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree). Item four (i.e., I believe that dividing the work so that we could each work individually would be best) was negatively worded and was reversed back in data analysis. However, if the reserve coded item was deleted, Cronbach alpha was improved from .52 to .88. Thus, item four was deleted in the main study.

Discussion of Pilot 1

Overall, pilot 1 was conducted for three objectives. First, pilot 1 tested the clarity of the procedures and materials used in this study. The results indicated that participants understood the procedures and instructions as expected. Thus, the same instructions and paragraphs describing the context were continued to be used in the main study. Second, pilot 1 indicated that the manipulation of the target's self-generated and other-generated posts were successful as

intended. That being said, positive stereotype-relevant statements were evaluated positively, whereas negative stereotypical messages were perceived negatively. Thus, no more changes were made in the main study in terms of the experimental stimuli. Lastly, most measurements used in pilot 1 produced acceptable reliability, indicating the internally consistency of the measures. Thus, they were continued to be used in the main study. However, as negative worded items could be misunderstood and influence the internal reliability of some variables, negative worded items were not included in the main study.

In addition, pilot 1 highlighted some problems that should be addressed before the main study was conducted. For example, the results of realism check indicated that some participants did not perceive the negative messages as realistic and believable as the positive ones (i.e., for the condition only with the target's negative self-generated posts: $M = 3.51$, $SD = 1.39$; for the condition only with negative other-generated posts: $M = 2.95$, $SD = 1.39$). As most SNSs are not anonymous and mostly based on ones' real-world connections, individuals are more likely to present the positive aspects of themselves on social networking platforms, such as Facebook. Although negative posts and comments are not as common as the positive ones to be observed on SNSs, messages with negative valence do exist in the online environment. For example, a variety of studies have been conducted recently to explore the dark side of social media such as cyberbullying or online discrimination (Kokkinos et al., 2016; Kwan & Skoric, 2013). In addition, since negative messages typically contain and imply the abnormality of a situation, this type of messages actually plays a more critical role in the process of impression formation. Therefore, the main study added three Yes/No questions targeting the realism issue in the negative conditions before the manipulation procedure based on the results of pilot 1 (see Appendix E, p.149).

Main Study

Participants

Participants in the main study were U.S. domestic students who are Facebook users (N = 572; 273 females, 299 males; Mage = 21.98, SD = 5.31; age range = 18-60). They were recruited through Turk Prime, a crowd-sourcing research platform that is frequently used by researchers in social and behavioral science to reach a diverse sample (Litman, Robinson, & Abberbock 2017). Of the participants, 358 (62.6 %) were White/Caucasian, 71 (12.4%) were African Americans, 62 (10.8%) were Hispanic/Latino, 53 (9.3%) were Asian Americans/ Pacific Islanders, 16 (2.8%) were Biracial/Multiracial, 6 were Native Americans (1.0%), and 6 (1.0 %) were unspecified. To a large degree, this demographic information is very close to the national census data of the U.S. population distribution (i.e., 60.7% White alone, 18.1% Hispanic or Latino, 13.4% African American, 6% Asian Americans/ Pacific Islanders, 1.3% Native Americans; U.S. Census Bureau, 2018).

Procedures

Participants filled out an online questionnaire (see Appendix E). After filling out demographic information, participants read a paragraph asking them to imagine a situation in which they were going to have a Chinese international student as their roommate or might work with a Chinese international student (the target) on a group project in a mandatory class they both were in. Following this, participants were presented with the Chinese target's Facebook page to learn more about the target. As such, participants were randomly assigned to one of the eight manipulation conditions (see Table 2 below or Appendix B) and viewed one of the eight corresponding mock-up Facebook pages before answering questions.

Table 2

Eight Experimental Conditions in the Main Study.

	Positive self-generated posts	Negative self-generated posts	The condition with other-generated posts only
Positive other-generated posts	Condition 5 (71 participants)	Condition 7 (72 participants)	Condition 3 (68 participants)
Negative other-generated posts	Condition 6 (72 participants)	Condition 8 (71 participants)	Condition 4 (73 participants)
The condition with the target's self-generated posts only	Condition 1 (74 participants)	Condition 2 (71 participants)	

Specifically, 74 participants were assigned to the first condition (i.e., positive self-generated posts only), 71 participants were assigned to the second condition (i.e., negative self-generated posts only), 68 participants were assigned to the third condition (i.e., positive other-generated posts only), 73 participants were assigned to the fourth condition (i.e., negative other-generated posts only), 71 participants were assigned to the fifth condition (i.e., positive self-generated and positive other-generated posts), 72 participants were assigned to the sixth condition (i.e., positive self-generated and negative other-generated posts), 72 participants were assigned to the seventh condition (i.e., negative self-generated and positive other-generated posts), and 71 participants were assigned to the eighth condition (i.e., negative self-generated and negative other-generated posts).

Consistent with pilot 1, a gender-neutral Chinese name (i.e., Ming Chen) was used on all mock-up profiles to control for the potential influence of the target's gender. Two gender-neutral

American names (i.e., Taylor Jordan & Chris West) were used to represent the target's Facebook friends. Participants were informed that they were of the same gender as the Chinese target Ming Chen and the target's friends. To avoid the influence of physical attractiveness, both Ming Chen's and the friends' profile pictures were blurred.

Experimental Stimuli and Manipulation Check

The experimental stimuli were the same as those in pilot 1, including eight experimental stimuli in total. First, four mock-up Facebook pages were created to operationalize the two independent variables respectively (i.e., the target's self-generated posts: positive vs. negative; other-generated posts: positive vs. negative) in order to test H1 and H2. On this basis, another four mock-up Facebook pages were created to test H3, H4, H5, and to answer RQ1 and RQ2, targeting the warranting effects specifically.

Manipulation of self-generated posts (positive vs. negative): Two different mock-up Facebook pages for Ming Chen were created representing the positive and negative self-stereotyping conditions. The positive condition involved two positive posts where the target was self-described as smart/ hardworking and nice/friendly respectively. In a similar vein, the negative condition contained two negative posts where the target was self-described as oblivious/annoying and poor English/not assimilated. These self-descriptions (see Appendix C for the specific manipulation scripts) are in line with the major characteristics that are consistent with the stereotypes of Chinese international students as a cultural group.

Participants in each of the two conditions were instructed to provide a rating on a 7-point semantic differential scale (1 = extremely negative, 7 = extremely positive) to indicate whether they thought the two posts made by Ming Chen were in general positive or negative. One-sample *t*-test indicated that the mean score of participants' ratings in the condition with positive self-

generated posts were significantly above the mid-point of 4, $t(73) = 29.39$, $p < .001$, $M = 6.54$, $SD = .74$, thus Ming Chen's positive posts in this condition were perceived positively by the participants as intended. To the contrary, the mean score of participants' ratings in the condition with negative self-generated posts were significantly below the mid-point of 4, $t(70) = -3.61$, $p = .001$, $M = 3.38$, $SD = 1.45$, indicating the statements were negatively perceived as intended.

Consistent with the pilot study, participants in the main study were also asked to provide ratings that best reflected their agreement on the four statements measuring the presence of the four different types of stereotypes. Specifically, participants in each condition were asked to rate on four 7-point Likert scales (e.g., 1 = strongly disagree, 7 = strongly agree) whether or not they thought Ming Chen described him/herself as smart/hardworking, nice/friendly, oblivious/annoying and bad English/not assimilated respectively. Higher numbers indicated that a specific stereotype was presented and perceived. The results indicated that participants who viewed the target with positive self-generated posts rated the positive traits higher than the negative ones (smart/hardworking: $M = 6.35$, $SD = 1.15$; nice/friendly: $M = 5.59$, $SD = 1.46$; oblivious/annoying: $M = 1.14$, $SD = .86$; bad English/not assimilated: $M = 1.85$, $SD = 1.30$). To the contrary, participants who viewed the target with negative self-generated posts rated the negative traits higher than positive ones (smart/hardworking: $M = 2.27$, $SD = 1.40$; nice/friendly: $M = 3.34$, $SD = 1.74$; oblivious/annoying: $M = 3.75$, $SD = 1.77$; and bad English/not assimilated: $M = 5.82$, $SD = 1.53$). The results above also provided some evidence for the successful manipulation.

Manipulation of other-generated posts (positive vs. negative): Similarly, stereotypical other-generated posts were manipulated through two mock-up Facebook pages with two positive or two negative posts made by Ming Chen's Facebook friends, Taylor Jordan and Chris West.

Each of the four posts (two positives and two negatives) involved the comments made by the target's friend as having the major characteristics that are consistent with the stereotypes of Chinese international students as a group (e.g., positive: smart/ hardworking and nice/friendly; negative: oblivious/annoying and poor English/not assimilated; see Appendix C for the manipulation scripts).

Likewise, participants in each condition were instructed to provide a rating on a 7-point semantic differential scale (1 = extremely negative, 7 = extremely positive) to indicate whether they thought the comments made by Ming Chen's Facebook friends (i.e., Taylor Jordan and Chris West) were in general positive or negative. A one-sample *t*-test indicated that the mean score of participants' ratings in the condition with positive other-generated posts were significantly above the mid-point of 4, $t(67) = 25.93$, $p < .001$, $M = 6.35$, $SD = .75$, hence the friends' comments were positively perceived. To the contrary, the mean score of participants' ratings in the condition with negative other-generated posts only were significantly below the mid-point of 4, $t(72) = -17.58$, $p < .001$, $M = 1.96$, $SD = .99$, indicating the friends' comments were negatively perceived.

In addition, participants in the conditions with other-generated posts (positive vs. negative) were asked to provide ratings that best reflected their agreement on the statements measuring the presence of four different stereotypes on 7-point Likert scales (e.g., 1 = strongly disagree, 7 = strongly agree). In the condition with positive other-generated posts only, the four stereotypes were evaluated in the following way: smart/hardworking ($M = 6.30$, $SD = 1.38$), nice/friendly ($M = 6.12$, $SD = 1.35$), oblivious/annoying ($M = 1.58$, $SD = 1.17$), and bad English/not assimilated ($M = 2.07$, $SD = 1.48$). For the condition with negative other-generated posts only, the four stereotypes were assessed as below: smart/hardworking ($M = 2.48$, $SD =$

1.20), nice/friendly (M = 2.97, SD = 1.20), oblivious/annoying (M = 5.14, SD = 1.38), and bad English/not assimilated (M = 3.96, SD = 1.38). Higher number indicated that a specific stereotype was perceived. Thus, participants in general understood the conditions as intended, indicating successful manipulation of other-generated posts.

Manipulation of both self-generated and other-generated posts (four conditions): In order to test warranting theory (H3, H4, H5, RQ1, and RQ2), four additional conditions were created containing both the target's self-generated and other-generated posts (i.e., the condition with positive self-generated and positive other-generated posts; the condition with positive self-generated and negative other-generated posts; the condition with negative self-generated and positive other-generated posts; and the condition with negative self-generated and negative other-generated posts). The specific scripts of self-generated (positive vs. negative) and other-generated posts (positive vs. negative) were as the same as we have discussed above.

Measures

Communication anxiety. Nine items (M = 3.62, SD = 1.30, α = .91) adapted from Stephan and Stephan (1985) were used to measure participants' communication anxiety when they encounter a situation to interact with the Chinese target (e.g. "I may feel anxious," "I may feel awkward," or "I may feel defensive") on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Trust. Seven items (M = 4.76, SD = 1.32, α = .97) adapted from Oleszkiewicz and Lachowicz-Tabaczek (2016) and Moorman et al. (1992) were used to assess participants' level of trust of the Chinese target given an opportunity to work on a group project after viewing the target's Facebook page (e.g. "I could trust Ming Chen to get our work done," "Ming Chen will

not let me down," or "Ming Chen is reliable") on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Social attractiveness. Five items (M = 4.76, SD = 1.39, α = .93) adapted from Imamura and Zhang (2014) were used to measure participants' perceptions about socializing with the Chinese target after viewing the target's Facebook page (e.g. "I think Ming Chen and I could be friends," "Ming Chen would be pleasant to be around," or "Ming Chen would be easy to get along with"; also see McCroskey et al., 2006) on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Task attractiveness. Four items (M = 5.04, SD = 1.45, α = .94) adapted from McCroskey and McCain (1974) were used to measure whether or not participants consider the Chinese target as a valued and respected partner to work with after viewing the target's Facebook page (e.g. "Ming Chen is capable to get the job done," "I could get most things accomplished with Ming Chen", or "Ming Chen would be an efficient problem solver"; also see Walther et al., 2008) on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Willingness to communicate. Four items (M = 5.09, SD = 1.43, α = .96) adapted from Imamura and Zhang (2014) were used to measure participants' willingness to talk or initiate conversations with the Chinese target after viewing the target's Facebook page (e.g. "I would like to talk with Ming Chen," "I would like to initiate conversations with Ming Chen," or "I would like to chat with Ming Chen"; also see McCroskey & Richmond, 1987) on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Willingness to cooperate. Four items (M = 5.97, SD = 1.03, α = .91) adapted from Scott, Bishop, and Chen (2003) were used to measure participants' willingness to cooperate with the Chinese target after viewing the Facebook page (e.g. "I am willing to cooperate with Ming Chen

to get the group project done," "I am willing to share information with Ming Chen about the group project," or "I am willing to enhance communication with Ming Chen about the group project") on a 7-point Likert Scale (1 = strongly disagree, 7 = strongly agree).

Realism Check

Realism checks were also conducted in the main study. Consistent with the pilot study, participants in the conditions only with self-generated or other-generated posts were asked to indicate whether or not they thought the posts made by Ming Chen or Ming Chen's Facebook friends were realistic and believable on a 7-point Likert scale (1= Not at all, 7 = Extremely). The items in the pilot study were used in the realism check of the target's self-generated posts in the main study (Zhang et al, 2005; α = .85 in the condition with positive self-generated posts, and α = .82 in the condition with negative self-generated posts). A one-sample *t*-test indicated that participants in the condition only with the target's positive self-generated posts rated the experimental stimulus significantly above the mid-point 4, $M = 4.88$, $SD = 1.39$, $t(73) = 5.45$, $p < .001$. Thus, the target's positive self-generated posts were considered as realistic and believable by participants in the main study. Unlike the results in pilot 1, participants in the condition only with the target's negative self-generated posts also rated the experimental stimulus significantly above the mid-point 4, $M = 4.39$, $SD = 1.34$, $t(70) = 2.42$, $p = .018$. Thus, the target's negative self-generated posts were considered as realistic and believable by the participants.

Likewise, participants in the conditions with positive or negative other-generated posts only were asked to indicate on three items (Zhang et al, 2005; α = .87 in the condition with positive other-generated posts, and α = .70 in the condition with negative other-generated posts) whether or not they thought the posts made by Taylor Jordan & Chris West were realistic using a 7-point Likert scale (1= Not at all, 7 = Extremely). A one-sample *t*-test indicated that participants

in the condition with the target's positive other-generated posts rated the condition significantly above the mid-point 4, $M = 4.84$, $SD = 1.44$, $t(72) = 5.00$, $p < .001$. Thus, positive other-generated posts were considered as realistic and believable. Participants in the condition with negative other-generated comments rated the experimental stimulus below the mid-point 4, $M = 3.69$, $SD = 1.37$, $t(71) = -1.92$, $p = .058$. The nonsignificant result indicated that the manipulation of negative other-generated posts was neither realistic nor unrealistic. It was, however, less realistic than the positive other-generated condition.

In order to test the realism issue of negative statements, the main study added three Yes/No questions. Participants were asked to answer three questions about whether or not they had ever observed negative statements on Facebook. The results indicated that 74.1% of our participants reported that they had seen someone leave negative comments on others' posts, 70.3% of our participants had seen someone post negative messages about their lifestyles or behaviors on Facebook, and 35.8% reported that they had received negative comments or unpleasant messages about themselves on Facebook. Although negative statements may not as common as positive statements to be observed on SNSs, negative messages did exist (Kokkinos et al., 2016; Kwan & Skoric, 2013) and the results aforementioned provided some support.

Summary

Based on the theoretical delineations of warranting theory (Walther & Parks, 2002) and stereotypes held by U.S. domestic students about Chinese international students, the purpose of this experimental study is to examine the effects of exposure to the Chinese target's Facebook page with stereotypical self-generated and other-generated posts (i.e. experimental conditions) on U.S. participants' perceived communication anxiety, trust, social and task attractiveness toward, and their willingness to communicate/cooperate with the target. Eight experimental conditions

were manipulated. Four conditions were developed targeting either the Chinese target's stereotypical self-generated posts or the posts made by the target's friends. The rest four conditions included both the target's self-generated and other-generated posts. Pilot 1 confirmed successful manipulation and added validity for the main study.

In the main study, participants were recruited through Turk Prime (N = 572; 273 females and 299 males; Mage = 21.98, SD = 5.31; age range = 18-60). They first answered questions about demographic information, their interactions with Chinese, and Facebook habits. Then, participants were randomly assigned to one of the eight experimental conditions. After reading the manipulative stimuli, participants responded to the manipulation check items and answered questions on related to the dependent variables (i.e. communication anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate). In general, the manipulation was successful, and the Cronbach's alphas of the major measurements were acceptable, which ensured the reliability and validity of the present study.

CHAPTER FOUR: RESULTS

This experimental study examined the effects of exposure to a target Chinese student's Facebook profile with self- and/or other-stereotyping statements on U.S. students' judgements of (i.e., trust, anxiety, and attractiveness) and willingness to communicate and cooperate with the Chinese student. Eight multivariate analyses of covariance (i.e., MANCOVAs) were conducted testing the hypotheses and answering the research question. As Bartlett's test of sphericity indicated that the six dependent variables (i.e., anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate) were related to one another, $\chi^2(15) = 2281.58$, $p < .001$, the current study tested all dependent variables simultaneously as a group. Thus, Cronbach's alpha was adjusted ($p < .008$) to control for Type I error using the Bonferroni method in interpreting significance (Cohen, 2008). Considering the potential intervention of age (Harwood, Hewstone, Paolini, & Voci, 2005), gender (Vonk & Olde-Monnikhof, 1998), and ethnicity (Zhang, 2010) in intercultural communication, these variables were analyzed as covariates in the current study. Participants' ethnicity was coded into white and non-white groups.

Hypothesis 1 predicted that participants who viewed positive stereotypical self-generated wall posts of the Chinese target (i.e., hardworking/smart and nice/friendly) would have less anxiety and more trust toward the target, perceive the target as more attractive, and be more willing to communicate and cooperate with the target than participants in the negative self-stereotyping condition (i.e., oblivious/annoying and poor English/not assimilated). The results of one-way multivariate analysis of covariance (MANCOVA) indicated a significant multivariate effect for self-stereotyping (positive vs. negative) on the dependent variables, Wilks' $\lambda = .463$, $F(6, 129) = 24.93$, partial $\eta^2 = .537$, $p < .001$. Follow-up univariate ANCOVAs were significant for

all six dependent variables in H1 (see Table 3). The results in general indicated that participants in the positive self-stereotyping condition provided more positive ratings about the target (i.e., anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate) than those in the negative condition. Thus, H1 was fully supported.

Table 3

Results of Between-Subjects Univariate ANCOVAs (H1).

	Comparison Conditions						
Dependent Variables	*Mean* (Positive Self-generated Posts)	*SE*	*Mean* (Negative Self-generated Posts)	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	3.19[a]	.13	4.18[b]	.14	27.21	<.001*	.169
2. Trust	5.89[a]	.13	3.85[b]	.14	112.65	<.001*	.457
3. Social Attractiveness	5.58[a]	.13	4.13[b]	.14	58.31	<.001*	.303
4. Task Attractiveness	6.05[a]	.11	4.12[b]	.12	143.26	<.001*	.517
5. Willingness to Communicate	5.73[a]	.16	4.49[b]	.16	30.77	<.001*	.187
6. Willingness to Cooperate	6.15[a]	.12	5.69[b]	.12	7.47	.007*	.053

Note. Means are adjusted for the covariance of age, sex, and ethnicity. Adjusted means in the same row with different superscripts differ significantly at *$p < .008$ (Cronbach's alpha was adjusted using Bonferroni method).

Hypothesis 2 tested the effects of stereotypical other-generated posts (positive vs. negative) on the same dependent variables. One-way multivariate analysis of covariance (MANCOVA) was used to test H2. Results indicated a significant multivariate effect of stereotypical other-generated posts on the dependent variables, Wilks' $\lambda = .399$, F (6, 128) =

32.17, partial $\eta^2 = .601$, $p < .001$. Follow-up univariate ANCOVAs were significant for five of the six dependent variables in H2 (see Table 4). As Cronbach's alpha was adjusted using Bonferroni method (Cohen, 2008), willingness to cooperate was nonsignificant after alpha control. Overall, findings indicated that participants who viewed positive other-generated posts about the Chinese target had more positive ratings on five of the six dependent variables (except for willingness to cooperate) than those who viewed the negative posts. Thus, H2 was partially supported.

Table 4

Results of Between-Subjects Univariate ANCOVAs (H2).

	Comparison Conditions						
Dependent Variables	*Mean* (Positive Other-generated Posts)	*SE*	*Mean* (Negative Other-generated Posts)	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	3.03[a]	.14	4.00[b]	.14	25.33	<.001*	.160
2. Trust	5.90[a]	.12	4.08[b]	.12	124.15	<.001*	.483
3. Social Attractiveness	5.49[a]	.13	4.18[b]	.13	53.47	<.001*	.287
4. Task Attractiveness	5.98[a]	.12	3.96[b]	.12	146.85	<.001*	.525
5. Willingness to Communicate	5.55[a]	.13	5.03[b]	.13	7.99	.005*	.057
6. Willingness to Cooperate	6.15[a]	.13	5.81[a]	.12	3.79	.054	.028

Note. Means are adjusted for the covariance of age, sex, and ethnicity. Adjusted means in the same row with different superscripts differ significantly at *$p < .008$ (Cronbach's alpha was adjusted using Bonferroni method).

Hypothesis 3 predicted a combining/interaction effect of stereotypical self-generated and other-generated wall posts on participants' judgments of (i.e., anxiety, trust, social attractiveness, and task attractiveness) and willingness to communicate and cooperate with the target. Four conditions containing both the target's self-generated and other-generated posts were manipulated as discussed in the method section. First, a two-way multivariate analysis of covariance (MANCOVA) was conducted to evaluate the self-generated by other-generated posts interaction effect on the dependent variables. Results indicated a significant multivariate effect of the target's self-generated posts on the dependent variables, Wilks' $\lambda = .839$, F (6, 271) = 8.67, partial $\eta^2 = .161$, $p < .001$, a significant multivariate effect of the stereotypical other-generated posts on the dependent variables, Wilks' $\lambda = .546$, F (6, 271) = 32.63, partial $\eta^2 = .454$, $p < .001$, and a nonsignificant interaction effect, Wilks' $\lambda = .966$, F (6, 271) = 1.58, partial $\eta^2 = .034$, $p = .154$. Follow-up univariate ANCOVAs were significant for five of the six dependent variables (not for willingness to cooperate) in terms of the target's self-generated posts and were significant for all dependent variables for the other-generated posts. The results in general supported H1 and H2. However, the interaction between the two was nonsignificant for all dependent variables.

To further test H3, a one-way MANCOVA was conducted across the four conditions containing both the target's self-generated and other-generated posts. Results indicated a significant multivariate effect, Wilks' $\lambda = .472$, F (18, 767) = 12.94, partial $\eta^2 = .221$, $p < .001$. Follow up univariate ANCOVAs were significant for all the six dependent variables. For each dependent variable, six pairwise comparisons were conducted to test H3 (see Table 5). To control for Type I errors, Cronbach's alpha was controlled at $p < .0014$ using Bonferroni method (Cohen, 2008).

Findings indicated that participants provided the most positive ratings about the target on task attractiveness in the double positive condition (i.e., both self-generated and other-generated posts about the target were positive), followed by the mixed condition with self-negative and other-positive posts, the mixed condition with self-positive and other-negative posts, and the double negative condition (i.e., both self-generated and other-generated posts about the target were negative). Although participants' trust toward the target followed a similar pattern as for task attractiveness, their ratings did not differ in the double positive and the condition with self-negative and other-positive wall posts. Due to the strict control of Cronbach's alpha ($p < .0014$), participants' perceived social attractiveness toward and willingness to communicate with the target did not differ significantly in the two mixed conditions or between the double negative condition and the mixed condition with self-positive and other-negative wall posts. Participants' willingness to communicate with the target was also not significantly different between the double positive condition and the mixed condition with self-negative and other-positive posts. Participants' anxiety level toward and reported willingness to cooperate with the target only differed significantly in two of the six comparisons (i.e., between the double positive condition and the mixed condition with self-positive and other-negative posts; or between the double positive and the double negative condition). In spite of the nonsignificant results, participants' overall ratings on the six dependent variables actually followed the hypothesized pattern (see Table 5). Thus, Hypothesis 3 was partially supported.

Overall, findings related to H3 indicated that when both self- and other-generated posts exist, positive self-generated posts had a greater potential than negative self-generated posts to mitigate the effects of other-generated negative messages and boost the effects of other-generated positive messages. Thus, for international students, presenting themselves positively

online (i.e., smart, hard-working, nice, polite, and helpful) is helpful for them to maintain good relationships with others, make more local friends, and reduce the negative effects of others' comments. In addition, findings from this study also found that other-generated negative messages had a greater potential than other-generated positive messages to affect the effects of the target's self-generated posts on the dependent variables. Supporting warranting theory, all the six dependent variables were significant in the comparison between the double positive condition and the condition with self-positive and other-negative wall posts.

Table 5

Results of Between-Subjects Univariate ANCOVAs (H3).

	Manipulation Conditions							
	PSPO		NSPO		PSNO		NSNO	
Dependent Variables	*Mean*	*SE*	*Mean*	*SE*	*Mean*	*SE*	*Mean*	*SE*
Anxiety	2.83^{a}	.15	3.58^{ab}	.15	3.88^{b}	.15	4.34^{b}	.15
Trust	5.57^{a}	.11	5.08^{a}	.11	4.17^{b}	.11	3.52^{c}	.11
Social Attractiveness	5.88^{a}	.15	4.85^{b}	.15	4.28^{bc}	.15	3.64^{c}	.15
Task Attractiveness	6.34^{a}	.13	5.63^{b}	.13	4.64^{c}	.13	3.63^{d}	.13
Willingness to Communicate	5.90^{a}	.17	5.21^{ab}	.17	4.56^{bc}	.17	4.21^{c}	.17
Willingness to Cooperate	6.37^{a}	.12	6.17^{ab}	.12	5.74^{b}	.12	5.60^{b}	.12

Note: Means are adjusted for the covariance of age, sex, and ethnicity. Adjusted means in the same row with different superscripts differ significantly at $p < .0014$ (Cronbach's alpha was adjusted using Bonferroni method). P = positive; N = negative; S = self; O = other; PSPS = the condition with positive self-generated and positive other-generated posts; NSPO = the condition with negative self-generated and positive other-generated posts; PSNO = the condition with positive self-generated and negative other-generated posts; NSNO = the condition with negative self-generated and negative other-generated posts.

Hypothesis 4 examined the mitigating role of other-generated Facebook posts to the target's self-generated posts on the same dependent variables in conditions where they were inconsistent with each other. In order to test H4, the two mixed conditions (i.e., self-positive and other-negative, or self-negative and other-positive) were compared with the condition containing either positive (H4a) or negative self-generated wall posts (H4b). One-way MANCOVA indicated a significant multivariate effect for both comparisons (self-positive vs. self-positive and other-negative: Wilks' $\lambda = .491$, $F(6, 131) = 22.64$, partial $\eta^2 = .509$, $p < .001$; self-negative vs. self-negative and other-positive: Wilks' $\lambda = .630$, $F(6, 129) = 12.62$, partial $\eta^2 = .370$, $p < .001$). For H4a (i.e., self-positive vs. self-positive and other-negative), univariate ANCOVAs were significant for all dependent variables except for willingness to cooperate. For H4b (i.e., self-negative vs. self-negative and other-positive), univariate ANCOVAs were significant for all dependent variables (see Table 6). Supporting warranting theory, findings in general indicated that negative other-generated posts about the target changed the way that self-generated posts were perceived by participants for five of the six dependent variables (H4a). In the presence of negative other-generated posts about the target, the effects of positive self-descriptions on participants' judgments of the target were reduced significantly. Likewise, when the target's self-generated posts were negative, positive other-generated posts reduced the effect of negative self-descriptions on perceptions (H4b). However, our findings also challenged warranting theory in that negative other-generated posts did not influence participants' willingness to cooperate with the target as expected in the presence of the target's positive self-descriptions. Hence, H4a was partially supported and H4b was fully supported.

Table 6

Results of Between-Subjects Univariate ANCOVAs (H4).

	Manipulation Conditions						
Dependent Variables	*Mean (PS)*	*SE*	*Mean (PSNO)*	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	3.21[b]	.14	3.88[a]	.14	11.21	.001*	.076
2. Trust	5.88[b]	.11	4.21[a]	.11	114.71	<.001*	.458
3. Social Attractiveness	5.57[b]	.14	4.29[a]	.14	42.15	<.001*	.237
4. Task Attractiveness	6.04[b]	.12	4.66[a]	.12	65.00	<.001*	.323
5. Willingness to communicate	5.72[b]	.16	4.61[a]	.16	24.41	<.001*	.152
6. Willingness to cooperate	6.15[a]	.11	5.84[a]	.12	3.63	.059	.026

	Manipulation Conditions						
Dependent Variables	*Mean (NS)*	*SE*	*Mean (NSPO)*	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	4.16[b]	.14	3.56[a]	.14	9.70	.002*	.068
2. Trust	3.84[b]	.14	5.11[a]	.13	43.50	<.001*	.245
3. Social Attractiveness	4.13[b]	.15	4.88[a]	.14	13.59	<.001*	.092
4. Task Attractiveness	4.10[b]	.13	5.69[a]	.13	72.61	<.001*	.351
5. Willingness to communicate	4.49[b]	.17	5.25[a]	.17	10.05	.002*	.070
6. Willingness to cooperate	5.68[b]	.12	6.17[a]	.11	9.35	.003*	.065

Note. Means are adjusted for the covariance of age, sex, and ethnicity. Adjusted means in the same row with different superscripts differ significantly at *$p < .008$ (Cronbach's alpha was adjusted using Bonferroni method). P = positive; N = negative; S = self; O = other; PSNO = the condition with positive self-generated and negative other-generated posts; PS = the condition

with positive self-generated posts only; NSPO = the condition with negative self-generated and positive other-generated posts; NS = the condition with negative self-generated posts only.

Hypothesis 5 was proposed to further test warranting theory. Specifically, H5 argued that the valence of the Chinese target's self-generated posts would not significantly change the effect of other-generated posts on the dependent variables (i.e., anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate). Thus, the two mixed conditions (i.e., self-positive and other-negative, or self-negative and other-positive) were compared with the condition containing either negative or positive other-generated wall posts respectively. One-way MANCOVA indicated a significant multivariate effect for both comparisons (other-negative vs. self-positive and other-negative: Wilks' λ=.735, F (6, 130) = 7.83, partial η^2 = .265, p <.001; other-positive vs. self-negative and other-positive: Wilks' λ = .667, F (6, 129) = 10.71, partial η^2 =.333, p <.001). However, in the first comparison group (i.e., other-negative vs. self-positive and other-negative), univariate ANCOVAs were significant only for participants' ratings on the target's task attractiveness, but not for the rest variables (i.e., anxiety, trust, social attractiveness, willingness to communicate, and willingness to cooperate; See Table 7). Consistent with H5, adding positive self-descriptions to the profile with negative other-generated comments did not change participant's judgments of the target in terms of their perceived level of anxiety, trust, social attractiveness, willingness to communicate, and willingness to cooperate with the target. However, the perceived task attractiveness of the target was not as sensitive as other variables to the negative comments and was influenced by the target's positive self-descriptions, indicating the importance of the stereotype content and the type of dependent measures (i.e., the type of judgment or attitudes). These findings to a large degree supported warranting theory, emphasizing the more influential role of negative other-

generated messages on participants' judgments and behavioral tendencies, even with the presence of positive self-descriptions. In the second comparison group (other-positive vs. self-negative and other-positive), univariate ANCOVAs were significant for anxiety, trust, and social attractiveness, but were nonsignificant for task attractiveness, willingness to communicate, and willingness to cooperate (See Table 7). Consistent with warranting theory, negative self-descriptions did not significantly influence participants' task attractiveness toward the target, and their willingness to communicate and cooperate with the target in the presence of positive other-generated statements. However, other results were inconsistent with warranting theory. Specifically, participants reported increased anxiety toward targets with negative self-generated posts, as well as lower trust and social attractiveness. In general, H5 was partially supported.

Table 7

Results of Between-Subjects Univariate ANCOVAs (H5).

	Manipulation Conditions						
Dependent Variables	*Mean (NO)*	*SE*	*Mean (PSNO)*	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	4.01[a]	.15	3.89[a]	.15	.33	.568	.002
2. Trust	4.07[a]	.12	4.21[a]	.12	.75	.387	.006
3. Social Attractiveness	4.17[a]	.15	4.28[a]	.15	.27	.603	.002
4. Task Attractiveness	3.95[b]	.14	4.66[a]	.14	13.69	<.001*	.092
5. Willingness to communicate	5.01[a]	.17	4.61[a]	.17	2.83	.095	.020
6. Willingness to cooperate	5.80[a]	.13	5.84[a]	.13	.047	.828	<.001

Dependent Variables	Manipulation Conditions						
	Mean (PO)	*SE*	*Mean (NSPO)*	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	3.01[b]	.14	3.56[a]	.13	8.32	.005*	.058
2. Trust	5.91[b]	.11	5.09[a]	.11	27.67	<.001*	.171
3. Social Attractiveness	5.49[b]	.13	4.87[a]	.12	12.26	.001*	.084
4. Task Attractiveness	5.97[a]	.12	5.67[a]	.12	3.10	.081	.023
5. Willingness to communicate	5.57[a]	.14	5.25[a]	.13	2.83	.095	.021
6. Willingness to cooperate	6.15[a]	.10	6.18[a]	.10	.050	.824	<.001

Note. Means are adjusted for the covariance of age, sex, and ethnicity. Adjusted means in the same row with different superscripts differ significantly at *p < .008 (Cronbach's alpha was adjusted using Bonferroni method). P = positive; N = negative; S = self; O = other; PSNO = the condition with positive self-generated and negative other-generated posts; NO = the condition with negative other-generated posts only; NSPO = the condition with negative self-generated and positive other-generated posts; PO = the condition with positive other-generated posts only.

Research Question 1 explored whether adding other-generated posts, which were consistent with the target's self-generated posts (i.e., both self-generated and other-generate posts about the target were positive, or negative) influenced participants' perceptions of the dependent variables. In order to answer RQ1, the double positive (i.e., both self-generated and other-generate posts about the target were positive) and the double negative condition (i.e., both self-generated and other-generate posts about the target were negative) were compared with the condition containing either positive or negative self-generated posts only. One-way MANCOVA indicated a significant multivariate effect for the comparison between the self-positive only and the double positive condition, Wilks' $\lambda = .704$, $F(6, 132) = 9.17$, partial $\eta^2 = .294$, $p < .001$, while results were nonsignificant for the comparison between the double negative and the self-negative

condition, Wilks' λ = .937, $F(6, 129) = 1.46$, partial $\eta^2 = .063$, $p = .199$. However, the univariate ANCOVAs were nonsignificant for all the dependent variables in both comparisons (see Table 8). That being said, adding positive or negative other-generated posts to the condition with self-generated statements of the same valence did not significantly change participants' ratings of the dependent variables, thus producing an averaging effect.

Table 8

Results of Between-Subjects Univariate ANCOVAs (RQ1).

	Manipulation Conditions						
Dependent Variables	*Mean (PS)*	*SE*	*Mean (PSPO)*	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	3.20[a]	.14	2.83[a]	.14	3.60	.060	.026
2. Trust	5.89[a]	.09	5.58[a]	.09	5.89	.017	.041
3. Social Attractiveness	5.58[a]	.13	5.87[a]	.13	2.49	.117	.018
4. Task Attractiveness	6.04[a]	.10	6.35[a]	.10	5.01	.027	.035
5. Willingness to communicate	5.72[a]	.12	5.89[a]	.12	1.07	.302	.008
6. Willingness to cooperate	6.15[a]	.10	6.37[a]	.10	2.71	.102	.019

	Manipulation Conditions						
Dependent Variables	*Mean (NS)*	*SE*	*Mean (NSNO)*	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	4.21[a]	.14	4.32[a]	.14	.308	.580	.002
2. Trust	3.83[a]	.14	3.56[a]	.14	2.26	.135	.016
3. Social Attractiveness	4.12[a]	.16	3.66[a]	.15	4.40	.038	.032

4. Task Attractiveness	4.10[a]	.14	3.64[a]	.14	6.09	.015	.043
5. Willingness to communicate	4.49[a]	.20	4.22[a]	.19	.833	.363	.006
6. Willingness to cooperate	5.69[a]	.14	5.59[a]	.13	.349	.556	.003

Note. Means are adjusted for the covariance of age, sex, and ethnicity. Adjusted means in the same row with different superscripts differ significantly at *$p < .008$ (Cronbach's alpha was adjusted using Bonferroni method). P = positive; N = negative; S = self; O = other; PSPO = the condition with positive self-generated and positive other-generated posts; PS = the condition with positive self-generated posts only; NSNO = the condition with negative self-generated and negative other-generated posts; NS = the condition with negative self-generated posts only.

Research Question 2 explored whether adding the target's self-generated messages to the Facebook page with other-generated posts of the same valence influenced participants' perception of the dependent variables. In order to answer RQ2, the double positive and the double negative condition were compared with the condition containing either positive or negative other-generated posts respectively. One-way MANCOVA indicated a significant multivariate effect between the double positive and the other-positive condition, Wilks' $\lambda = .696$, $F(6, 129) = 9.40$, partial $\eta^2 = .304$, $p < .001$. Univariate ANCOVAs, however, were nonsignificant for the dependent variables. To the contrary, one-way MANCOVA indicated a significant multivariate effect between the double negative and the other-negative condition, Wilks' $\lambda = .884$, $F(6, 131) = 2.87$, partial $\eta^2 = .116$, $p = .012$, and univariate ANCOVAs were significant for trust and willingness to communicate (see Table 9). Although the target's self-generated posts did not play a role on the dependent variables in the double positive condition, adding negative self-generated messages to the condition with negative other-generated posts made participants trust the target less and less willing to communicate with the target.

Table 9

Results of Between-Subjects Univariate ANCOVAs (RQ2).

	Manipulation Conditions						
Dependent Variables	*Mean (PO)*	*SE*	*Mean (PSPO)*	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	3.03[a]	.15	2.83[a]	.14	1.04	.309	.008
2. Trust	5.91[a]	10	5.58[a]	.10	5.36	.022	.038
3. Social Attractiveness	5.48[a]	.13	5.88[a]	.12	4.91	.028	.035
4. Task Attractiveness	5.98[a]	.11	6.36[a]	.11	6.51	.012	.046
5. Willingness to communicate	5.56[a]	.12	5.90[a]	.12	4.13	.044	.030
6. Willingness to cooperate	6.16[a]	.10	6.38[a]	.10	2.54	.114	.019

	Manipulation Conditions						
Dependent Variables	*Mean (NO)*	*SE*	*Mean (NSNO)*	*SE*	*F*	*p*	*Partial* η^2
1. Anxiety	4.00[a]	.15	4.36[a]	.15	2.96	.088	.021
2. Trust	4.08[b]	.12	3.52[a]	.12	11.54	.001*	.078
3. Social Attractiveness	4.19[a]	.15	3.63[a]	.15	6.78	.010	.047
4. Task Attractiveness	3.95[a]	.13	3.61[a]	.13	3.23	.074	.023
5. Willingness to communicate	5.02[b]	.17	4.21[a]	.17	11.21	.001*	.076
6. Willingness to cooperate	5.79[a]	.14	5.59[a]	.14	.935	.335	.007

Note. Means are adjusted for the covariance of age, sex and ethnicity. Adjusted means in the same row with different superscripts differ significantly at *$p < .008$ (Cronbach's alpha was adjusted using Bonferroni method). P = positive; N = negative; S = self; O = other; PSPO = the condition with positive self-generated and positive other-generated posts; PO = the condition with positive other-generated posts only; NSNO = the condition with negative self-generated and negative other-generated posts; NO = the condition with negative other-generated posts only.

Summary

Hypothesis 1 predicted that participants in the positive self-stereotyping condition would provide more positive ratings on the dependent variables (i.e. anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate) than participants in the negative self-stereotyping condition (i.e., oblivious/annoying and poor English/not assimilated). H1 was fully supported, indicating that participants who viewed the target with positive stereotypical self-descriptions (i.e., hardworking/smart and nice/friendly) on Facebook had less anxiety toward and more trust of the target, perceive the target more attractive, and be more willing to communicate and cooperate with the target than participants in the negative self-stereotyping condition (i.e., oblivious/annoying and poor English/not assimilated).

Hypothesis 2 predicted that participants in the condition with positive other-generated posts would provide more positive ratings on the dependent variables (i.e. anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate) than participants in the negative other-stereotyping condition (i.e., oblivious/annoying and poor English/not assimilated). H2 was partially supported (not for willingness to cooperate). Thus, participants who viewed positive other-generated messages about the Chinese target had less anxiety toward and more trust of the target, perceive the target more attractive, and be more willing to communicate with the target than those who viewed negative other-generated messages.

Hypothesis 3 predicted a combining/ interaction effect of self-generated and other-generated stereotyping posts on participants' judgments of (i.e., anxiety, trust, social attractiveness, and task attractiveness) and willingness to communicate and cooperate with the target. The results indicated that participants provided the most positive ratings about the target

on task attractiveness in the double positive condition (i.e., both self-generated and other-generated posts about the target were positive), followed by the mixed condition with self-negative and other-positive, the mixed condition with self-positive and other-negative, and the double negative condition (i.e., both self-generated and other-generated posts about the target were negative). In spite of a few nonsignificant results in terms of participants' perceived anxiety, trust, social attractiveness of the target, and their willingness to communicate and cooperate with the target, participants' overall ratings on these five variables across the four conditions actually followed the hypothesized pattern. Thus, Hypothesis 3 was partially supported.

Hypothesis 4 predicted that other-generated Facebook posts mitigated the role that the target's self-descriptions play on the dependent variables (i.e. anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate) in conditions where the self-generated wall posts were inconsistent with the other-generated posts. In the existence of negative other-generated posts about the target, the effects of positive self-generated posts on participants' judgements of the target were reduced significantly (not for willingness to cooperate). Thus, H4a was partially supported. When the target's self-generated posts were negative, positive other-generated posts mitigated the way that negative self-descriptions were perceived. Hence, H4b was fully supported.

Hypothesis 5 predicted that the valence of the Chinese target's self-generated posts would not significantly change the effect of other-generated posts on the six dependent variables. Supporting warranting theory, positive self-generated posts did not influence the way that negative other-generated messages had on five dependent variables (i.e. anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate),

except for task attractiveness. Although negative self-generated posts did not significantly influence participants' task attractiveness toward the target, and their willingness to communicate and cooperate with the target in the presence of positive other-generated statements, negative self-descriptions decreased participants' judgements of the target in terms of anxiety, trust, and social attractiveness, thus constituting a challenge to warranting theory. Hypothesis 5 was partially supported.

Research Question 1 explored whether adding other-generated posts, which were consistent with the target's self-generated posts (i.e., both self-generated and other-generated posts about the target were positive, or negative) influenced participants' perceptions of the dependent variables. The results indicated that adding positive or negative other-generated posts to the condition with self-descriptions of the same valence did not significantly change participants' ratings of the dependent variables, thus producing an averaging effect.

Research Question 2 explored whether adding the target's self-generated posts to the Facebook page with other-generated posts of the same valence influenced participants' perceptions of the dependent variables. Although the target's self-descriptions did not play a role on the dependent variables in the double positive condition, adding negative self-descriptions to the condition with negative other-generated posts made participants trust the target less and less willing to communicate with the target.

CHAPTER FIVE: DISCUSSION

Guided by prior literature on warranting theory (Walther & Parks, 2002) and stereotypes (Ruble & Zhang, 2013), this experimental study examined the effects of exposure to a target Chinese international student's Facebook page with stereotypical self-generated and other-generated posts on U.S. participants' judgments of (i.e., anxiety, trust, social attractiveness, and task attractiveness), and their willingness to communicate and cooperate the Chinese target. Specifically, eight experimental conditions were manipulated, four of which featured the effects of self-generated (positive vs. negative) and other-generated posts (positive vs. negative) respectively and the rest featured the conditions with both self- and other-generated messages.

There were three main goals in this study. First, it attempted to explore whether participants' judgments of the Chinese target varied according to the valence of the stereotypical portrayals (Hypothesis 1 and Hypothesis 2). Findings of this study indicated that participants in the positive self-stereotyping and the other-generated message conditions had more trust and less anxiety toward the target, perceived the target as more attractive, and were more willing to communicate with the target than their counterparts in the negative self-stereotyping and the other-generated message conditions. However, positive stereotyping led to greater willingness to cooperate than negative stereotyping only in the self-stereotyping conditions. Willingness to cooperate did not differ in the other-generated message conditions.

The second goal of this study was to examine the warranting effect. Specifically, it explored whether the target's self-generated posts interacted with the friends' comments to influence participants' perception of the target. Supporting warranting theory, other-generated posts about the target mitigated the effect of self-generated posts on the dependent variables in most cases when self- and other-generated stereotypical messages about the target were

inconsistent with one another. When both self- and other-generated stereotypical messages about the target were available, participants in general were most positive about the target in the double positive condition, followed by the condition with negative self-generated and positive other-generated posts, and the condition with positive self-generated and negative other-generated posts, with participants in the double negative condition being the least positive about the target. However, the type of dependent measure, and the dynamic interplay between stereotype content and the valence of self-generated posts to some extent limited the warranting effect of other-generated posts.

Lastly, this study extended prior literature on impression formation and examined whether the process of forming impressions of others followed an averaging or an additive pattern. Results indicated that other-generated posts in general produced an averaging effect when other-generated posts were consistent with the target's self-generated posts. In other words, adding other-generated posts (either positive or negative) to the target's Facebook page with self-descriptions of the same valence did not significantly enhance or decrease the existing effect.

The chapter first summarizes the major findings and potential explanations of the experimental study, and then it discusses the theoretical and practical contributions of the present study. Finally, limitations of the study are discussed and suggestions for future research are provided.

Stereotypes and Their Influence in Intercultural Communication

The first two hypotheses explored whether the valence of the stereotypical information (i.e., positive vs. negative) would influence participants' judgments of, willingness to communicate and cooperate with the target. Specifically, Hypothesis 1 predicted that participants would have less anxiety toward and more trust of the target, perceive the target as more social

and task attractive, and be more willing to communicate/cooperate with the Chinese target in the positive self-stereotyping condition (i.e., hardworking/smart and nice/friendly) than the target in the negative self-stereotyping condition (i.e., oblivious/annoying and poor English/not assimilated). Hypothesis 2 examined whether the valence of other-generated statements (i.e., positive vs. negative) had the same effects on the dependent variables. Hypothesis 1 was fully supported, and Hypothesis 2 was supported for all dependent variables but willingness to cooperate. In general, the findings indicated that participants perceived and reacted differently when exposed to stereotypical statements with different valences. In regard to Chinese international students, stereotypes related to hardworking/smart and nice/friendly were perceived by U.S. students positively in a cooperative context, whereas stereotypes such as oblivious/annoying and poor English/not assimilated were evaluated in a negative way as expected.

Two things should be noted from the findings above. First, participants rated willingness to cooperate as equally and highly positive in the condition with positive other-generated comments, and the condition with negative comments. Second, participants in general seemed to provide neutral to moderately positive ratings of the Chinese target in the condition with negative other-generated posts. In sum, participants in general were willing to communicate and cooperate with the Chinese target despite the negative comments from the friends. One possible explanation could be participants' consciousness of cyberbullying (Kokkinos et al., 2016; Kwan & Skoric, 2013) produced sympathetic feelings toward the target who received negative comments from others. This may then have led to a relatively positive rating in the condition containing negative other-generated posts. This could also be the potential explanation for

participants' willingness to cooperate with the target described in negative terms by friends at a level similar to the participants who read positive comments from friends.

However, prior literature on stereotypes argues that positive stereotypes do not always result in positive attitudes in intergroup and intercultural communication. Stereotypes associated with Asians (e.g., intelligent or self-disciplined) could be perceived as highly competent while cold in some way (Fiske et al., 2002). Positive images such as being competent could be considered as threatening and might weaken one's own group status. As one of the products of social categorization, negative stereotypes or perceiving outgroup members in a relatively negative way to some degree reflect our inner desire to construct the positive side of ourselves. Social identity theory argues that individuals are motivated to achieve and establish positive distinctiveness or self-concept in the process of social competition and comparison (Haslam, 2010; Tajfel, 1972). In order to maintain group pride and possibly positive self-esteem, individuals differentiate their ingroup from a comparison outgroup on some valued dimensions such as personal attributes, abilities, material possessions, and so forth, and thus have behaviors favoring ingroups in intergroup competition. Hence, positive and stereotypical cultural characteristics are not always encouraging in intercultural interaction and may handicap intercultural communication in some situation (Aberson & Haag, 2007; Zhang, 2010).

At first glance, the arguments above seem to conflict with findings in the present study. However, the scenarios manipulated in this study were actually situated in the context of typical intercultural interactions on a U.S. campus. Participants were U.S. domestic students and were informed that they were going to work with the Chinese target on a class project together. As such, the context of this study was more like an interpersonal communication situation in an intercultural context (Harwood & Giles, 2008). Thus, it was possible that U.S. participants just

considered the Chinese target as an individual with positive traits such as hardworking and nice which may help U.S. students achieve certain goals (Liu, Zhang, & Wiebe, 2017), and therefore enhance positive impression formation and willingness to communicate and cooperate.

The distinction between intergroup and interpersonal communication could be conceptualized along a single continuum from individuals' personal identity to their social identity. Based on the identity salience, we can divide the context of communication into four quadrants (Harwood, Giles, & Palomares, 2005). In the first quadrant, both interpersonal and intergroup identities are highly salient. Thus, persons in this quadrant consider each other simultaneously as individuals and as members of different social groups. A bicultural married couple discussing cultural differences could fit into this quadrant. Communication in the second quadrant is guided by a high interpersonal salience and a low intergroup salience. In this quadrant, individuals' unique attributes (e.g. personalities) play an essential role in influencing communication and any group differences are insignificant. A conversation between a brother and a sister about their childhoods may be an example here. The third quadrant includes communicative behaviors based on high intergroup salience and low interpersonal salience. Since individuals' social identities are triggered in this quadrant, communication here is largely guided by their group membership, associated stereotypes, and specific group norms. In this circumstance, individuals become representatives of the group to which they belong. Typically, interaction among individuals from different countries for the first time could be an example of this situation. In the fourth quadrant, both interpersonal and intergroup saliences are rather low. Although it could be rare in reality, a brief talk with service personnel may constitute an example of such an interaction.

Prior studies have concentrated primarily on the third quadrant (i.e., high intergroup

salience and low interpersonal salience). They therefore paid more attention to intergroup competition and the potential threat caused by positive stereotypes of outgroups. The current study, however, placed an emphasis on the potential opportunity for mutual cooperation among members of different cultural groups. The communicative context here is more like the situation in the first quadrant (i.e., both interpersonal and intergroup saliences are high). As individuals' communicative behaviors are influenced by the salience of certain identities in a particular context, communication may function as a means to signal a particular identity and as a response to the activated identity. Therefore, participants may realize that although there are cultural differences between themselves and the Chinese target, the target's positive personal traits may indicate that they would benefit by communicating and cooperating with the target.

Warranting Theory and its Explanatory Scope in Intercultural Communication

In addition, this study extended and provided support for the utility of warranting theory in understanding online intercultural communication. Three hypotheses and two research questions were proposed targeting warranting effects. Hypothesis 3 predicted that participants would provide more positive ratings (i.e., have less anxiety and more trust toward the target, perceive the target as more attractive, and be more willing to communicate/ cooperate with the target) toward the Chinese target in the double positive condition (i.e., both self-generated and other-generated posts are positive), followed by the mixed condition with negative self-generated and positive other-generated posts, the mixed condition with positive self-generated and negative other-generated statements, and last the double negative condition (i.e., both self-generated and other-generated posts are negative).

Hypothesis 3 was partially supported. Although the social and task attractiveness of the target were the two variables that followed the predicted pattern across all comparisons, the other

four dependent variables (i.e., anxiety, trust, willingness to communicate, and willingness to cooperate) also followed the hypothesized pattern albeit not completely. The results on social and task attractiveness could reflect its close relationship to the context of this study (cooperation on a class project). As a result, it was perhaps more sensitive to the manipulation than the other dependent variables when both self-stereotyping and other-generated posts were included.

To further test warranting effects, Hypotheses 4 and 5 were proposed, concentrating on the conditions in which other-generated posts were incorporated into and disconfirmed the target's self-descriptions. In line with warranting theory (Walther & Parks 2002; Walther et al., 2009), results indicated that when stereotypical self-descriptions were inconsistent with other-generated posts, other-generated posts were more influential than self-descriptions on participants' judgments of and behavioral tendencies toward the Chinese target. In other words, other-generated comments altered the effects of stereotypical self-descriptions on participants' judgments of the target more than self-descriptions altered the effects of other-generated messages.

H4a, which focused comparing the effect of negative other-generated posts following positive self-descriptions, was partially supported. Supporting warranting theory, negative other-generated posts reduced the effect of positive self-generated posts on participants' judgments of (i.e., anxiety, trust, social attractiveness, and task attractiveness) and willingness to communicate with the target. However, willingness to cooperate was an exception in this comparison. H4b, which focused comparing the effect of positive other-generated posts following negative self-descriptions, was fully supported. Supporting warranting theory, positive other-generated posts mitigated the negative effect of the target's self-generated posts on all six dependent variables

(i.e., anxiety, trust, social attractiveness, task attractiveness, willingness to communicate, and willingness to cooperate).

Hypothesis 5 was partially supported. Supporting Hypothesis 5, adding positive self-generated posts to the Facebook page with negative other-generated posts did not change participant's judgments of the target in terms of their perceived level of anxiety, trust, social attractiveness and willingness to communicate and cooperate with the target. However, the perceived task attractiveness of the target was not as sensitive as other variables to the negative other-generated posts and was affected by the positive self-generated traits of the target. These findings generally supported warranting theory, since negative other-generated messages played a more influential role on participants' judgments and behavioral tendencies even with the presence of positive self-descriptions. However, as task attractiveness was the exception in this comparison, it is necessary to consider the stereotype content and the type of dependent measures (i.e., the type of judgment or attitudes) in testing the warranting effect in a mediated intercultural context. Supporting H5, negative self-generated posts did not significantly alter participants' task attractiveness toward the target, and their willingness to communicate and cooperate with the target in the presence of positive other-generated statements. In contrast, negative self-generated posts reduced participants' judgments of the target in terms of anxiety, and lower trust and social attractiveness, thus constituting a challenge to warranting theory.

Parks (2011) proposed three conditions for true warranting to exist, including "first, the source must make an identity claim and, second, a third party must comment on that claim in a way that others can observe. And finally, it must be possible for observers to compare the claim and comment in practical and meaningful ways (p.559)". Our findings revealed that other-generated posts in some cases overrode the source's self-claims when participants detected a

discrepancy between these two. Supporting warranting theory, findings in our study specifically demonstrated that the positive effects of positive self-generated posts on participants' evaluations of the target were reduced when negative other-generated posts were introduced. Likewise, the effects of negative self-generated posts on participants' evaluations of the target became smaller when the target's friends left positive statements.

However, it was also noted that not all arguments of Hypotheses 4 and 5 were supported. Therefore, the warranting effect of other-generated posts largely depends on what is actually evaluated when there is a discrepancy between self- and other-generated messages. For example, willingness to cooperate, as discussed earlier, did not differ significantly in some comparisons, and was perceived relatively positive in most conditions. Unlike factors that may potentially signal close interpersonal relationships such as social attractiveness, negative messages could be less influential on participants' willingness to cooperate with the target in the current research context (working on a class project). In addition, stereotype content played an essential role in the warranting effect of other-generated comments in the condition with mixed messages. This study found that participants rated the target as equally negative (except in task attractiveness) in the condition with negative other-generated posts only and the condition with positive self-generated and negative other-generated posts (Hypothesis 5). In this situation, introducing positive self-generated posts with the negative other-generated posts did not alter the effects of other-generated negative messages on the dependent variables, thus supporting warranting theory. Again, the one exception in this case was task attractiveness, in that positive self-generated posts mitigated the effect of negative other-generated statements about the target on participants' perceived task attractiveness of the target. As the Chinese target was self-descripted

as a competent partner to work with (i.e. hardworking and nice), participants may still perceive the target positively in an cooperative context regardless of the friends' negative posts.

Results inconsistent with Hypothesis 5 were that negative self-generated posts decreased participants' ratings on anxiety, trust and social attractiveness and therefore challenged warranting theory. One potential explanation could be related to the nature of negative messages. Actually, the effect of negativity was considered as one of the competing theories to warranting theory. Some scholars found that individuals were typically more sensitive to the messages with negative valence in impression formation (Kellermann, 1984; Walther, 2009). In comparison to positive messages, observers may consider negative messages carrying more weight and therefore more reliable than positive ones (Hamilton & Zanna, 1972; Leventhal & Singer, 1964). For example, negative attributes of interviewees are often paid more attention by interviewers in an interview (Webster, 1964). One explanation for this phenomenon is that messages with negative valence often contain information that is thought to be unusual or non-normative (Jones & Davis, 1965; Kellermann, 1984, 1989). Since normative information is more likely to be seen in interactions, observers may view positive message as a reflection of social norms or standards rather than an individual's real dispositions (Fiske, 1980). As the target's negative traits were introduced in the condition with both negative self-descriptions and positive other-generated comments, participants' perceptions of the target to some degree were influenced by the negative information.

In addition, attribution theory could be another possible explanation for the influential role that negative messages played in impression formation. Attribution in social psychology refers to the process by which individuals interpret the underlying causes that they assign to certain behaviors and events. In intergroup communication, positive behaviors of outgroup

members are generally assigned to external or situational factors. Thus, individuals tend to interpret positive traits or behavior of outgroup members as being caused by the situation that the member is in (Allport, 1954; Fiske, 2005; Stewart et al., 2010). On the contrary, negative behaviors of outgroup members, especially those are stereotype-consistent, are typically attached to internal or dispositional factors that reside within the individual (Pettigrew, 1979; Stewart et al., 2010). Considering the context of the current study, it was possible that participants attributed the Chinese target's negative behaviors to internal or personal factors instead of situational factors, thus perceived the Chinese target even more negatively.

In sum, the process of impression formation is a rather complicated process in intercultural communication. The observed warranting effect may be due to a variety of factors, including the source and the content of the messages, the valence the messages convey, the sequence in which the messages are received, and even whether participants consider the target as an ingroup (we are both university students) or outgroup member (I am an American and they are Chinese). Thus, future research should examine the explanatory range and predictive scope of warranting theory (DeAndrea & Carpenter, 2018), especially in intercultural communication.

The Averaging Process in Impression Formation

In addition to the warranting effect in the two mixed conditions (i.e., the condition with positive-self and negative-others; and the condition with negative-self and positive-others), this study proposed two Research Questions targeting the averaging or additive process of information valence in impression formation. Research Question 1 explored whether participants in the double positive (i.e., both the target's self-generated and other-generated posts are positive), and the double negative condition (i.e., both the target's self-generated and other-generated posts are negative) perceive the target more positively or negatively in comparison to

their counterparts in the condition only with positive or negative self-generated posts. Likewise, Research Question 2 explored whether the target's self-generated posts were adding or averaging the existing positive or negative effects of other-generated posts when these two were consistent with each other.

In general, the averaging effect was observed in all comparison conditions of RQ1. Thus, when self-generated posts were consistent with other-generated posts, other-generated posts actually played limited roles in forming impressions of others. In other words, adding positive or negative other-generated posts to the target's Facebook page with self-generated posts of the same valence did not make the existing effect more positive or negative. Although adding the target's self-generated posts to the Facebook page with other-generated posts of the same valence did not make the existing effect more positive or negative in most cases, participants indicated lower trust and willingness to communicate with the target in the double negative condition than the condition only with negative other-generated comments. Since the target was perceived more negatively when both sources provided negative information, this finding indicated an additive effect of negative messages. Consistent with discussions for H2, it was possible that the Facebook page with negative other-generated posts only made participants aware of online bullying (Kokkinos et al., 2016; Kwan & Skoric, 2013) and therefore produced some sympathetic feelings toward the target.

An act of bullying is defined as an aggressive act with three hallmark characteristics: it is intentional; it involves a power imbalance between an aggressor (individual or group) and a victim; it is repetitive in nature and occurs over time (Levy et al., 2012, p.8). Some bullying occurs due to discriminatory prejudice against others such as racism, sexism, and homophobic teasing (Levy et al., 2012; Russell, Sinclair, Poteat, & Koenig, 2012). As the Internet and mobile

technologies have become more common in our lives, research has switched its essential focus to the new type of bullying (i.e. cyberbullying) associated with the new mode of communication. Cyberbullying refers to behaviors of posting or sharing negative, harmful, or false information about someone else on online platforms such as SNS (i.e., Facebook, Instagram, or Twitter) and Short Message Services (i.e. SMS) where people can view and share information (Stopbullying.gov, 2018).

As cyberbullying could be a threat to the mental and physical health of victims, especially for adolescents, a variety of social organizations (Stopbullying.gov, 2018) and scholars across different disciplines are devoting their effects to prevent cyberbullying or at least minimize its harmful consequences. Additionally, scholars (Bastiaensens et al., 2014) have found that bystanders tended to report higher behavioral intentions to help the victim when they witnessed a severe incident. If participants in the current study considered the Chinese target in the condition only with negative other-generated comments a victim of cyberbullying, they may rate the Chinese target less negatively due to sympathetic feelings toward the target. This may explain why ratings on trust and willingness to communicate in the condition only with negative other-generated posts were more positive than the double negative condition. Moreover, this finding also indicates that the source should make an identity claim first to provide observers a comparative informing an accurate impression of the target.

Although messages with negative valence typically carry more weight in impression formation, not all negative messages are evaluated unfavorably. Communication accommodation theory (Gallois, Ogay, & Giles, 2005; Gasiorek & Giles, 2012; Giles, 2008) posits that individuals' evaluation of another person's accommodative behaviors could be affected by the inferred motive that is attributed to the accommodator. Hence, if the message receiver attributes

others' accommodative behaviors to a genuine motive, all types of behaviors are perceived positively (Simard, Taylor & Giles, 1976). On the contrary, if the receiver perceives a malicious intent, all types of behaviors are interpreted negatively. For example, using polite forms during conversations was perceived more positively when attributed to sociable intents rather than to authoritative intents (Bradac & Mulac, 1984). Gasiorek and Giles (2012) found that under or over-accommodative behaviors (i.e., inappropriately or insufficiently adjusting to others in an interaction) could be evaluated more positively when viewed as unintentional (i.e., the speaker did not pay attention or had no control) than when viewed as intentional (i.e., the speaker knew what she or he was doing). Future research should be conducted to explore how inferred motive affects how negative other-generated messages are perceived and influence observers' behaviors.

Theoretical Contributions

The present study was guided by warranting theory (Walther & Parks, 2002) and stereotypes about Chinese international students (Ruble & Zhang, 2013). The experimental study examined the effects of exposure to a target Chinese international student's Facebook page with stereotypical self-generated and other-generated posts on U.S. participants' perceptions of (i.e., anxiety, trust, social and task attractiveness) and willingness to cooperate and communicate with the Chinese target. Overall, the study provided four theoretical contributions to the field of intercultural and computer-mediated communication.

First, this study extends prior research on intercultural contact and provides empirical support for the role that stereotypes play in CMC. Most existing studies on stereotypes have been conducted to explore how stereotypes influence intergroup contact in the context of face-to-face interactions. However, research has not paid enough attention to how stereotypical presentations influence individuals' communicative behaviors in computer-mediated intercultural settings.

Findings of the present study have provided evidence that stereotypes also influence individuals' perception and motivation to communicate and cooperate in the online intercultural context. Consistent with prior literature, positive stereotypical presentations (i.e., smart, hardworking, nice) were perceived positively than the negative ones (i.e., not good at English or annoying) in the context where intercultural cooperation was deemed important.

Second, unlike prior studies emphasizing the negative effects of stereotypes in intercultural competition, the current study examines the role that stereotypes could play in a context with opportunities for potential intercultural cooperation. In particular, this study created a hypothetical while realistic situation involving an interpersonal relationship and opportunities for cooperation. Eight conditions were manipulated based on four prevalent stereotypes held by American students about Chinese international students (i.e., smart/hardworking, bad English/not assimilated, nice/friendly, and oblivious/annoying). The importance of intergroup cooperation has been emphasized in a variety of studies in intergroup contact (Christian & Lapinski, 2003; Shim, Zhang, & Harwood, 2012). As discussed earlier, the Contact Hypothesis (Allport, 1954) argues that intergroup contact should meet four optimal conditions (i.e., equal group status, common goals, cooperative interdependence, and institutional support) to be effective in facilitating positive intergroup relations. As effective contact helps intergroup members gain knowledge and generate affective ties about one another, contact that happens under four optimal conditions provides intergroup members opportunities to reappraise ingroup boundary and develop intercultural friendship, thus leads to positive attitudes and behavioral change (Pettigrew, 1998). Since the context manipulated in the present study provided potential opportunities for participants to cooperate with the target, positive stereotypes resulted in positive relationships among group members.

Third, while prior literature on warranting theory featured self- and other-generated messages primarily in interpersonal communication contexts, this study examines both the valence of the messages and sources of the messages that were consistent with existing cultural stereotypes in an online intercultural context. In other words, the present study extends the theoretical validity and utility of warranting theory in impression formation in online intercultural settings. This study also compares the warranting effects of other-generated messages with competing effects such as negativity, averaging, and additive effects. In general, this study demonstrates the complexity of the warranting effects of other-generated statements. The results indicate that the warranting effects could be limited and may vary depending on their interaction with other factors, such as the content of the messages, the valence the messages convey, or the sequence in which the messages are received.

Lastly, this study provides a more detailed mechanism to explain the process of impression formation and willingness to communicate and cooperate in intercultural communication. Six dependent variables with different foci (i.e., communication anxiety, trust, social and task attractiveness, willingness to communicate and cooperate) were examined. Communication anxiety emphasized participants' emotional response toward the target when exposed to different stereotypical portrayals (i.e. intercultural friendship). Trust was considered as the belief in one's ability to complete things, thus could be the signal or foundation for potential cooperation. Social attractiveness and task attractiveness referred to participants' judgments and evaluations on the target as a friend or as a group partner. And willingness to communicate and cooperate valued participants' behavioral tendencies and relational judgments toward the target. Overall, these variables worked together to provide a more detailed picture of

the roles that stereotypes play on impression formation, communication engagement and cooperation in an online intercultural communication context.

Practical Implications

In addition to the theoretical implications, the present study has three practical implications for international students, domestic students and university practitioners respectively. First, from the perspective of international students, findings from this study provide them a clear picture about the benefits of presenting themselves positively and maintaining good relationship with others on SNSs. The lens model (Brunswik, 1956) suggests that individuals make inferences about others via cues reflecting their characteristics, such as environmental residues (Gosling, Mannarelli, & Morris, 2002), nonverbal behaviors (Gifford, 2006), or one's profiles on SNSs (Hall et. al, 2014; Marcus et. al, 2006). With the development of social media and other online technologies, there are a variety of tools that international students could use to make friends with the local nationals or U.S. domestic students. Studying and living in a different country is exciting while stressful to international students. One the one hand, studying abroad is an opportunity for international students to experience new things and fulfill their dreams. On the other hand, a changed environment, associated with language inefficiency, lack of social support, may lead to acculturative stress and negative feelings, such as anxiety, loneliness, and disappointment (Misra, 2003). Thus, maintaining a close relationship with host nationals helps international student get involved in more easily.

Findings from this study indicate that presenting others a positive impression online (i.e., smart, hard-working, nice, polite, and helpful) may help international students maintain good relationships with others, make more local friends and potentially adapt to the new environment easily. Despite the fact that social media could be effective tools for international students to

present the best side of themselves to others, the online platforms are also places in which comments from others are influencing to observers' judgments. To international students, positive comments from their friends may help them leave others with good impression, make more friends, and to some extent mitigate their negative self-descriptions online. On the other hand, international students should be aware that negative comments made by others could battle the positive effect of their self-presentation. Therefore, it is important for international students to be cautious in the way they relate to others on SNSs. Even so, they don't need to be too nervous or panic about negative comments from others, since the process of impression formation is rather complex and influenced by a variety of factors. In certain contexts, positive self-descriptions may help international students reduce the negative effect of other-generated comments. For example, if domestic students perceive that the international student could help them achieve certain goals (Liu, Zhang, & Wiebe, 2017), such as completing a group project together successfully, the observers may still be willing to communicate with the student despite negative comments by others. In other cases, the observers may just perceive negative other-generated comments as cyberbullying, react sympathetically toward the international student, and provide potential opportunities for international friendship development.

Second, for domestic students, although the warranting principles suggest that individuals in general tend to view other-generated comments as more valid than the target's self-descriptions on social media, this study shows that it is not the case in some situations. Domestic students should realize that not all the comments made by others truly represent the profile owner's personalities or actual behaviors. People may comment on others with discriminatory attitudes or just distort things on purpose (Levy et al., 2012; Russell, Sinclair, Poteat, & Koenig, 2012). Essentially, studies have found that social media are platforms that are permeated with

fake news and suspicious information. Individual and professional spammers could be hired to post deceptive reviews on social networking platforms, such as Yelp or Twitter, to mislead individuals' decision-making process (Xue et al., 2019). Although social networking sites, like Facebook, could be different from Yelp or Twitter in regard to its primary functions, we cannot guarantee that all the information posted on Facebook is accurate. Thus, domestic students should be cautious about what they post in relation to the target's self-descriptions as well as comments posted by the target's friends, in order to form an accurate impression of the profile owner, especially when the owner is an international student.

Lastly, this study may provide university staff and offices of international students with insights to help international students adapt to the new cultural environment. Communication beyond intergroup biases could be rather challenging considering the current political and global environment. Since human beings are in nature hunting for power to gain more resources, competition among social groups seems inevitable and to some extent reflects our inner needs. From a theoretical perspective, individuals are motivated to achieve and establish positive distinctiveness and self-concept in social competition and comparison (Haslam, 2010; Tajfel, 1972). Hence, it is very common for individuals to portray outgroups negatively on social media and belittle others in intercultural interactions. Although stereotypes typically lead to prejudice and are in general negatively evaluated in intercultural contact, findings from the current study indicate that a potential opportunity for cooperation may mitigate the negative effects of stereotypes. Prior literature and findings of the current study have suggested that creating a context that calls for cooperation and friendship is essential to the improvement of intercultural relationships. Thus, offices and organizations that support international students should provide intergroup members opportunities to connect with one another at more than a superficial level.

More importantly, they are encouraged to organize and hold more events that elicit cooperative opportunities and intercultural friendship among international and domestic students. Although findings of the current study have a specific focus on Chinese students, the findings could be extended to other Asian students and those from other ethnic groups.

Limitations and Suggestions for Future Research

One limitation of the current study is associated with the relatively lower realism scores (lower than the positive stereotypes) provided by the participants about the negative stereotypical descriptions or statements on SNSs. As normative information is more likely to be seen in our daily interactions, participants may consider negative other-generated messages on SNSs, especially related to stereotypes, as a violation of certain social norms. Although negative messages are not very common to be viewed, this type of messages does exist in the online environment. For example, a variety of studies have been conducted recently to explore the dark side of social media such as cyberbullying (Kokkinos et al., 2016; Kwan & Skoric, 2013). The current study asked participants to rate whether or not they had observed negative messages on one's Facebook page. The results indicated that more than 70% of the participants had seen someone posted negative messages about their lifestyles or behaviors on Facebook, and 74% of our participants reported that they had seen someone left negative comments on others' posts. Thus, despite the fact that negative messages are less frequently than positive ones to be seen, they may leave a deeper impression on viewers when these messages emerge. Another limitation of this study is related to the online platform that this study is based on. Considering the purpose of manipulation and experimental control, this study has a specific focus on Facebook interaction. However, in reality, it is possible that individuals receive stereotypical messages about an outgroup member or view pictures containing stereotypical information from other

online or mediated sources, such as Instagram, Twitter, and so forth. Thus, future study should be conducted to further explore how stereotypical messages are perceived on different online or mediated platforms.

Other directions for future studies include adding gender factors, variables targeting intergroup contact or more technical features in creating the experimental stimuli. For example, we may add a feature on the mock-up Facebook page indicating the number of friends who "likes" the post made by the target's Facebook friend. It is possible that the more the comments are liked by others, the more influential role they would play in impression formation. In addition, connected with one's language skills, the names used by international sojourners may potentially play a role on host nationals' perception during intercultural communication. As individuals' names are closely linked with our race, gender, age or other social categories (Kasof, 1993), prior scholars considered names as another factor triggering stereotypes and leading to discrimination (Bertrand & Mullainathan, 2004; King et al., 2006). For example, Widner and Chicoine (2011) found that resumes with an Arabic name generally got fewer responses in job hunting compared to those with white-sounding names. In a field experiment investigating white professors' response toward an international student's request, Zhao and Biernat (2017) found that Chinese students presenting themselves using original names got fewer email replies when they requested a meeting for graduate training than using Anglo names in this process. As sojourners from non-English speaking countries often adopt Anglo names after relocating to a new country (Hsu, 2009; Roberts, 2010), the host national may choose different communicative styles depending on the names used. Hence, future study should extend the current study to a broader domain and may explicate the mediating mechanisms between individuals' stereotypical perceptions and their perceived and enacted communicative behaviors.

Conclusion

The present study examined how stereotypes about Chinese international students and stereotyping influenced U.S. students' perceptions of a Chinese target on SNSs. Our findings provided theoretical support for the existing literature on stereotypes and the way that stereotypes affect individuals' judgments and behaviors in intercultural communication. More importantly, in conjunction with cultural stereotypes, this study extended the existing work of warranting theory and demonstrated the theory's utility in an online intercultural context. As the participants, who were recruited through Turk Prime, were nation-wide U.S. domestic colleges students, our sample could be more representative than convenient sample and our findings may have higher generalizability. Our study has a specific emphasis on the academic context where most intercultural contact happens. Future study should examine whether our findings are potentially applicable to intercultural contact in other contexts such as the workplace.

Every culture has its strengths and shortcomings. Thus, competition and cooperation among different social or cultural groups are like a debatable topic while never have the correct answer. Intense competition will lead to intercultural conflicts or wars in extreme cases. Although no one likes wars, conflicts among people or countries seem inevitable. Scholars across disciplines have been working and struggling for years to study intercultural or regional conflicts. What we can do as an individual is often limited. However, people should be aware that the image you are constructing or presenting not only represent yourselves, it is also critical to intercultural relationships and influential to outgroups' attitudes toward the entire cultural group which you belong to. Intergroup biases and prejudice caused by faulty stereotypes always exist, we cannot change our outlook or skin color and we don't have the power to change the world. However, we can decide what kind of person we want to be and try our best to make the world better tomorrow.

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Appendix A: Situation

Please read the situation below carefully. When you finish reading the situation, you will be asked to answer a few questions to demonstrate your understanding of the situation.

Imagine that you are about to start a new semester at your university. Before classes began, you applied for a residence hall. Recently, **you received an email from the housing department regarding your potential roommate**. The email is attached below. Please read the email carefully. When you finish reading the email, you will be asked to answer a few questions to demonstrate your understanding of the email.

From: Student Housing
Subjects: Room Selection Completed

Dear Resident,

Thank you so much for your application. We have a room assignment for you as requested. We believe it is a good match. You are going to share the room with Ming Chen. **She is an international student from China.** Ming Chen provided Student Housing with her Facebook profile page. You can visit **her Facebook page** to learn more about her. We encourage you to contact your roommate prior to your arrival on campus to familiarize yourself with each other and to discuss details of setting up your room. If you don't like our recommendation, please notify us at your earliest convenience. Student Housing will assign you another roommate.

Sincerely,
Student Housing

<u>Instructions:</u> Please answer the following questions to demonstrate your understanding of the email. Please indicate whether you think the statements are True (T) or False (F):

1. You were notified by the housing department that you were going to have a Chinese international student as your roommate.
   [ ] True [ ] False
2. Your Chinese roommate is named Ming Chen.
   [ ] True [ ] False
3. Your Chinese roommate (Ming Chen) is a female.
   [ ] True [ ] False
4. You can visit the Facebook page of Ming Chen.
   [ ] True [ ] False

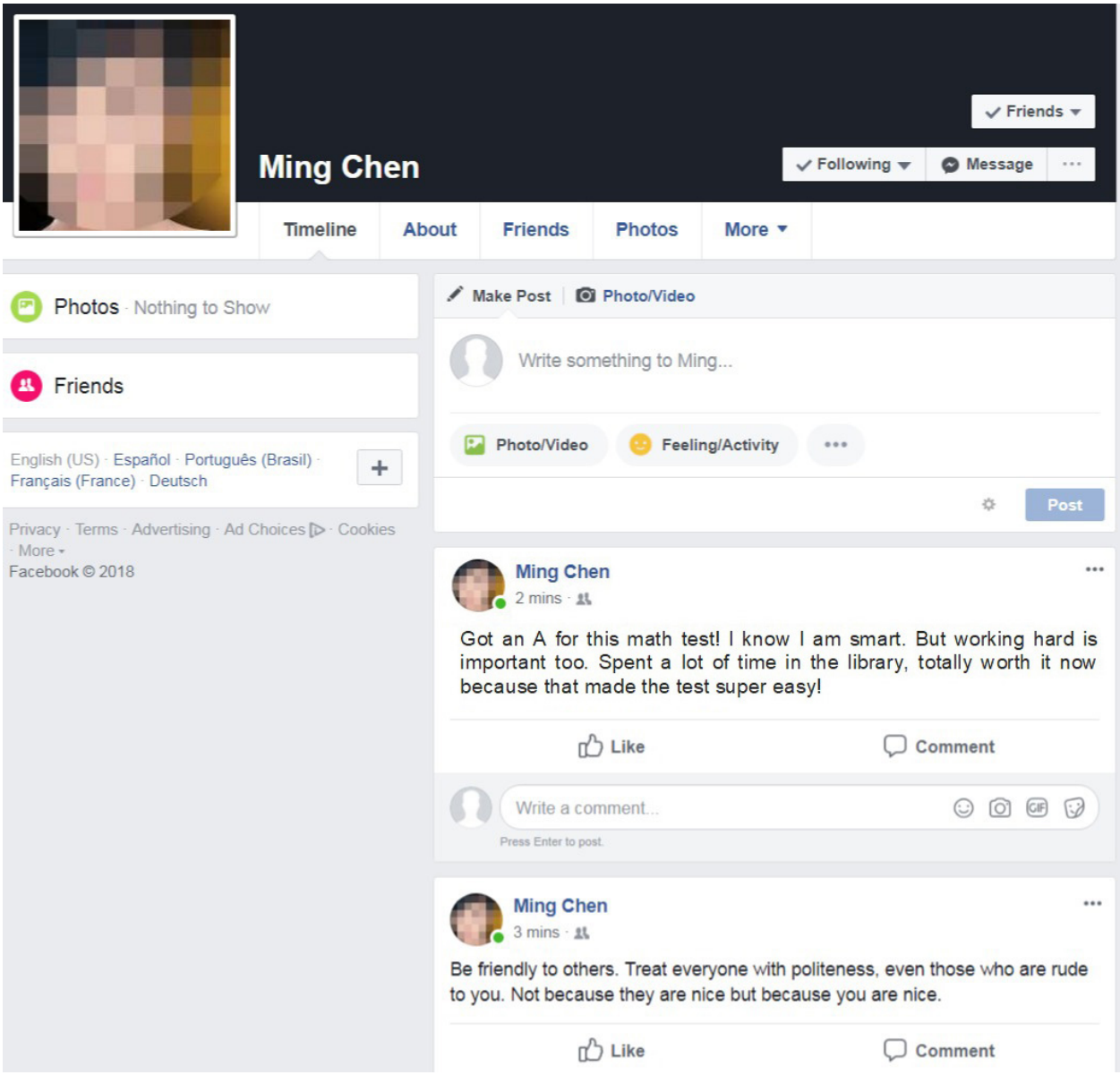
Note: The version above is designed for female participants. An adapted version will be used for male participants.

Appendix B: Eight Experimental Conditions

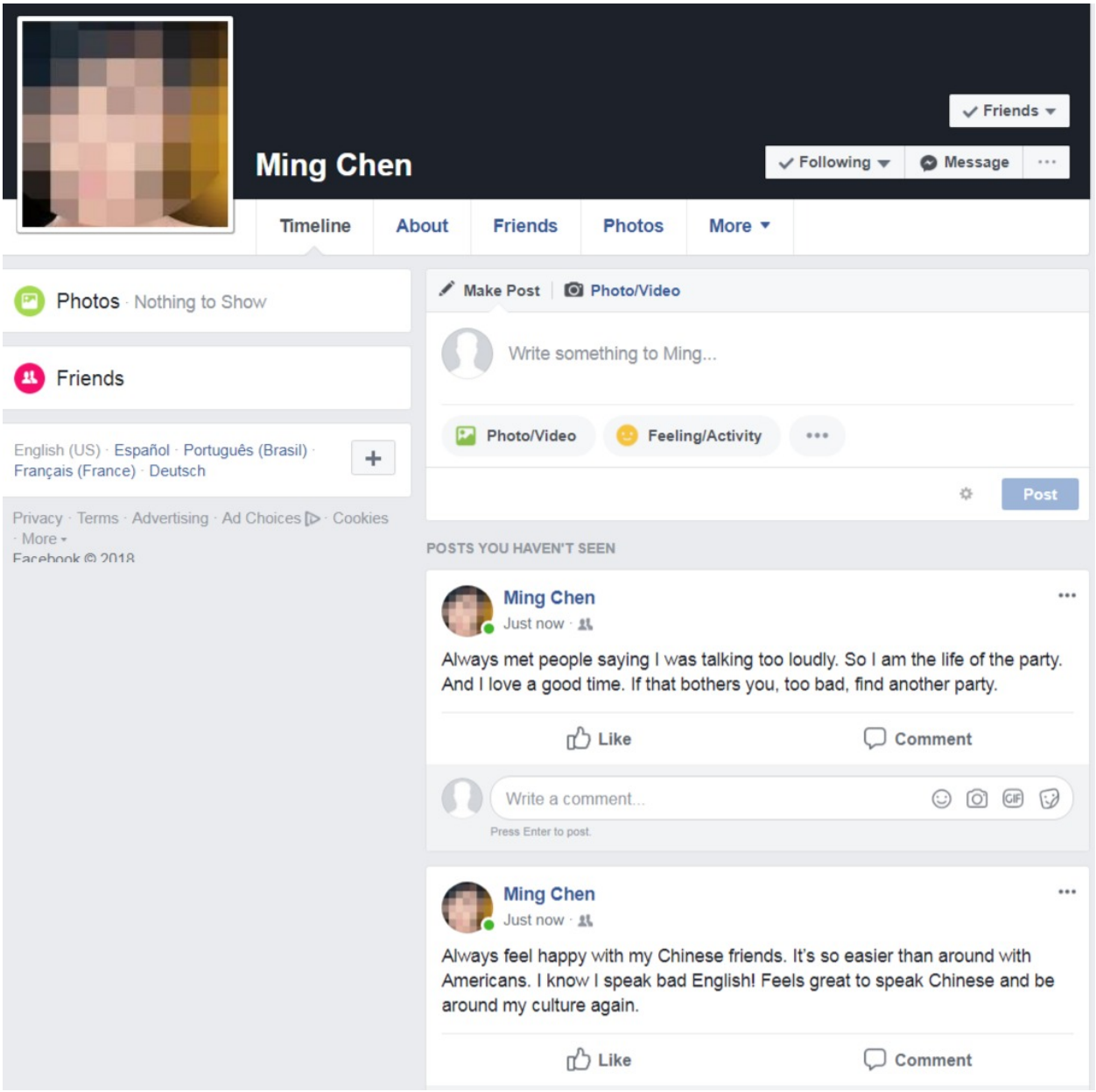
	Positive self-generated posts	Negative self-generated posts	The condition with other-generated posts only
Positive other-generated posts	Condition 5	Condition 7	Condition 3
Negative other-generated posts	Condition 6	Condition 8	Condition 4
The condition with the target's self-generated posts only	Condition 1	Condition 2	

Appendix C: Figures of Experimental Conditions

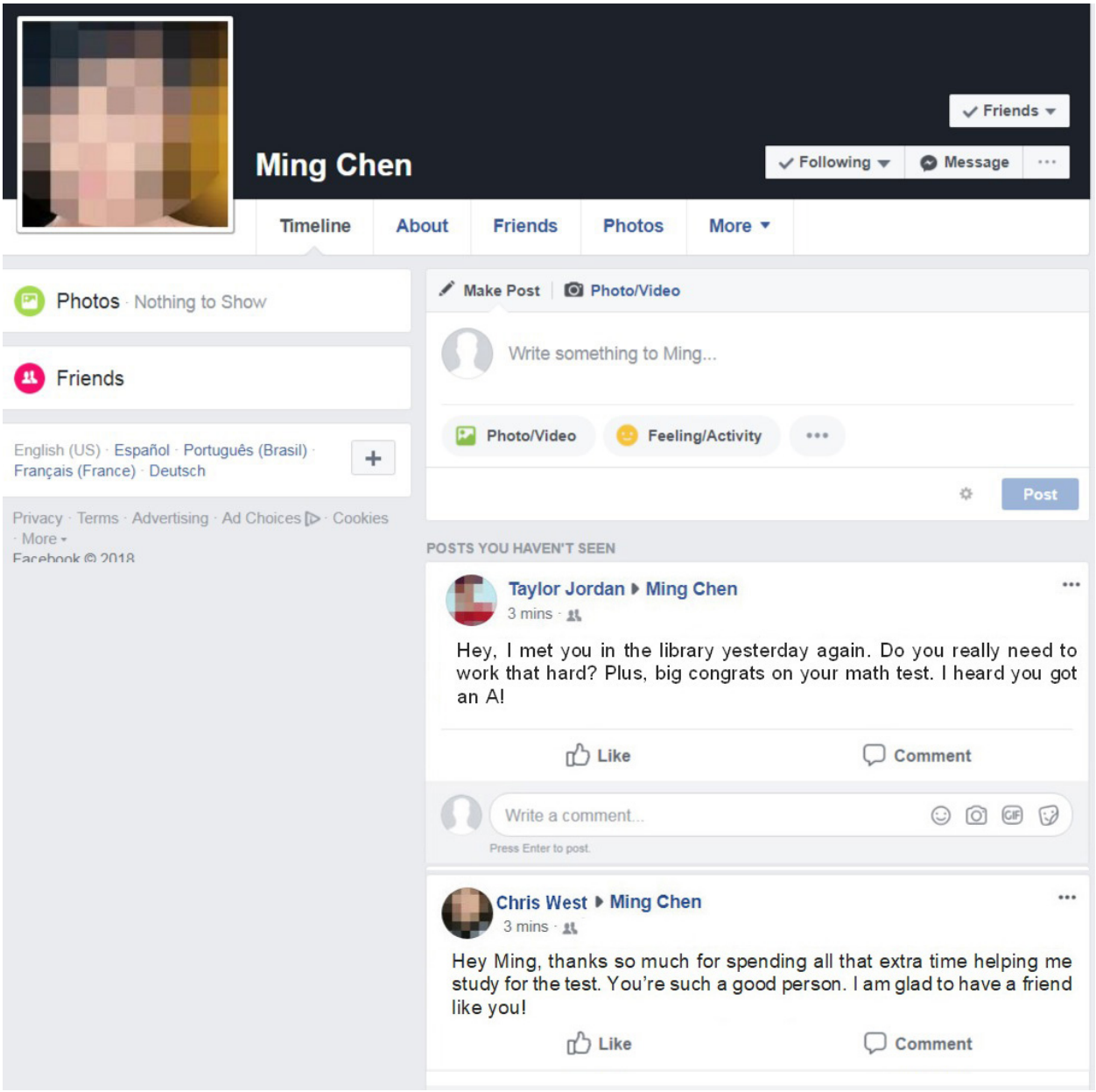
Condition 1: The Condition only with Positive Self-generated Posts



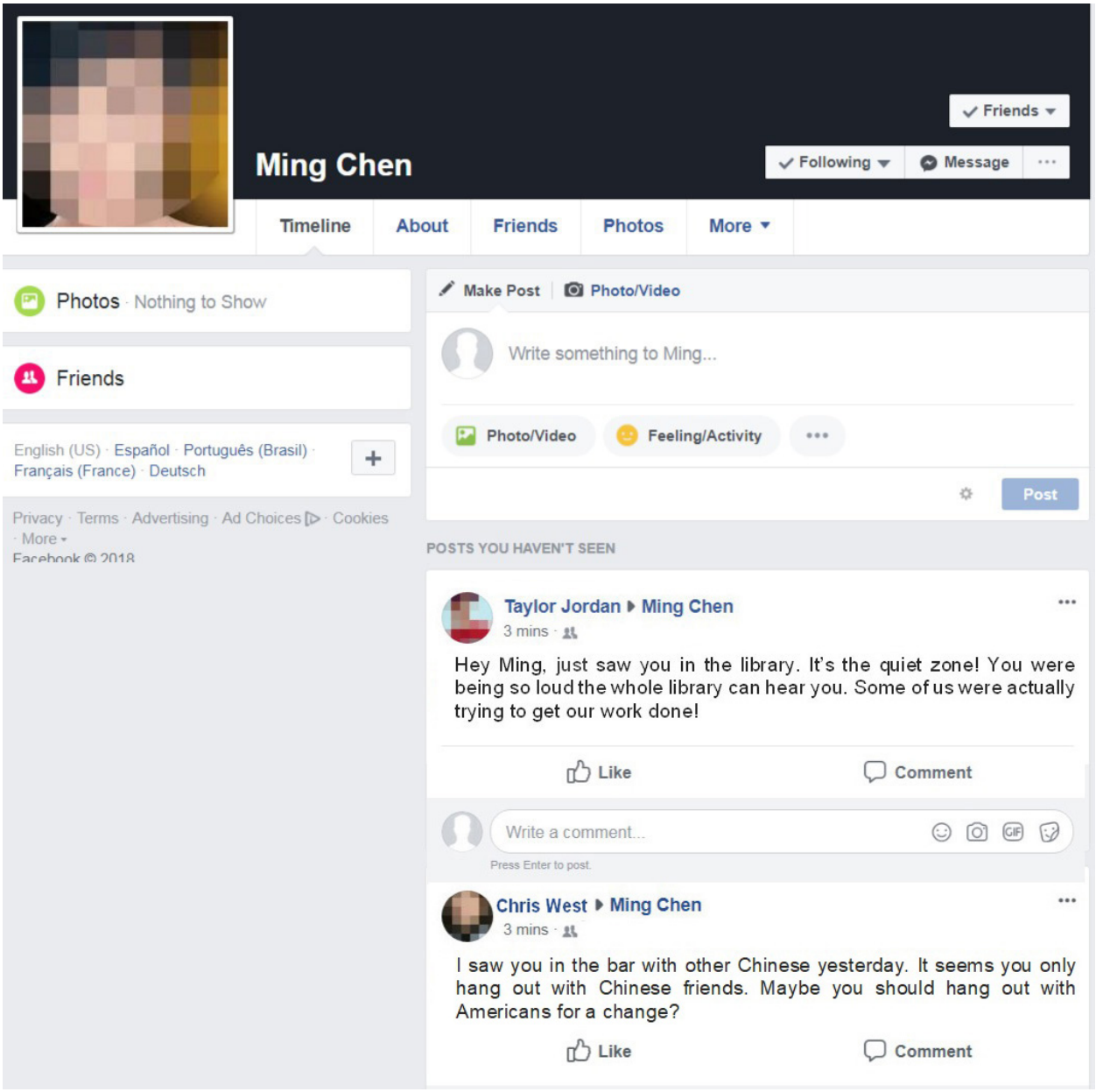
Condition 2: The Condition only with Negative Self-generated Posts



Condition 3: The Condition only with Positive Other-generated Posts



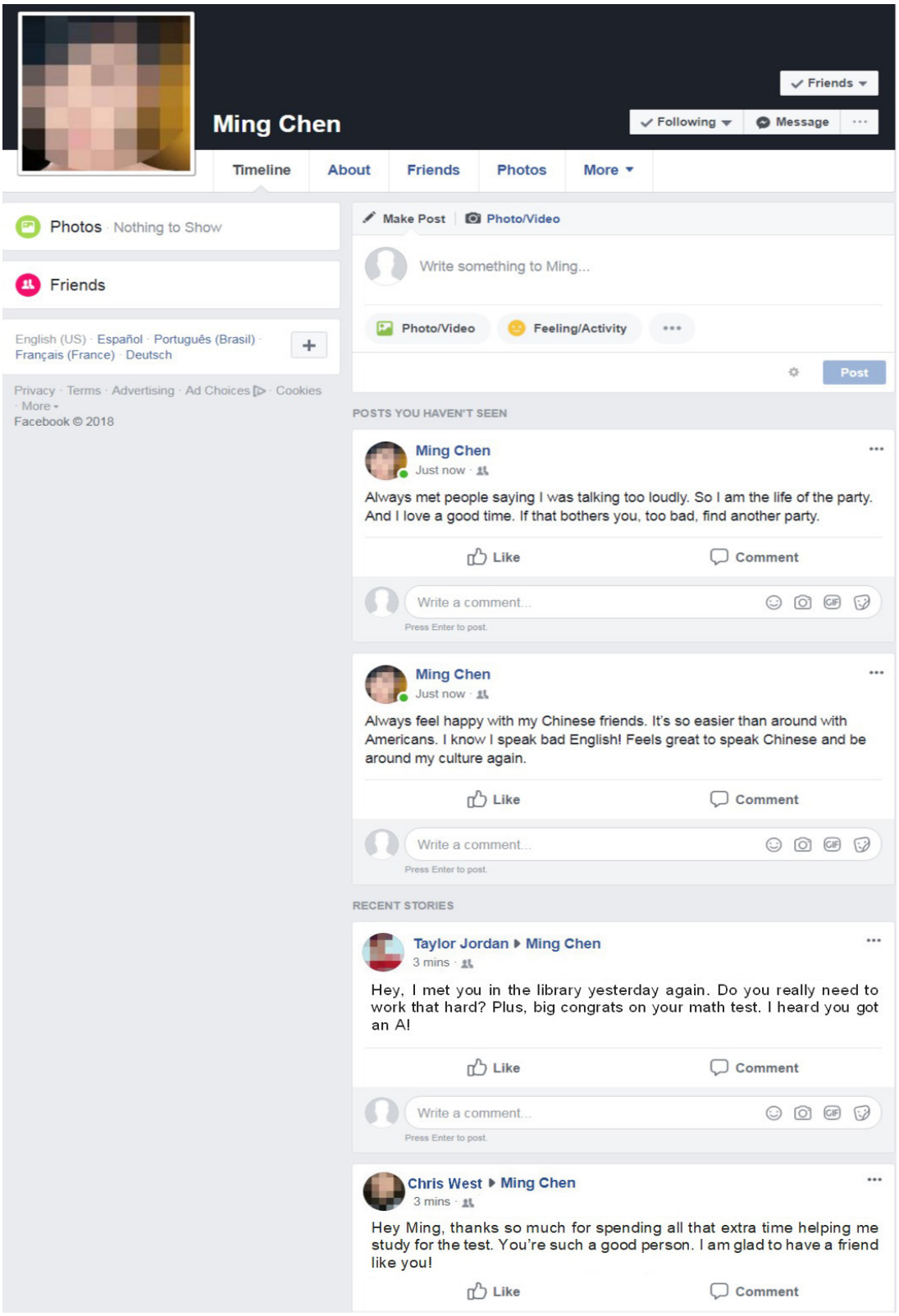
Condition 4: The Condition only with Negative Other-generated Posts



Condition 5: The Condition with Positive Self-generated and Positive Other-generated Posts

Condition 6: The Condition with Positive Self-generated and Negative Other-generated Posts

Condition 7: The Condition with Negative Self-generated and Positive Other-generated Posts



Condition 8: The Condition with Negative Self-generated and Negative Other-generated Posts

Appendix D: Questionnaire for Pilot 1

KU THE UNIVERSITY OF KANSAS Research

APPROVAL OF PROTOCOL

January 19, 2018

Ning Liu
nliu@ku.edu

Dear Ning Liu:

On 1/19/2018, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	An Exploration on U.S. students' perceptions of Chinese international students on Facebook
Investigator:	Ning Liu
IRB ID:	STUDY00141749
Funding:	None
Grant ID:	None
Documents Reviewed:	• 1_Facebook Profile Manipulation.docx, • Consent Form.docx, • Consent Form.docx, • Hard Work_Consistent.png, • HSCL_Initial_Submission_Form_Ning Liu.pdf, • Questionarie.docx

The IRB approved the study on 1/19/2018.

1. Notify HRPP about any new investigators not named in original application. Note that new investigators must take the online tutorial at https://rgs.drupal.ku.edu/human_subjects_compliance_training.
2. Any injury to a subject because of the research procedure must be reported immediately.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents for at least three years past completion of the research activity.

Continuing review is not required for this project, however you are required to report any significant changes to the protocol prior to altering the project.

Please note university data security and handling requirements for your project:
https://documents.ku.edu/policies/IT/DataClassificationandHandlingProceduresGuide.htm

You must use the final, watermarked version of the consent form, available under the "Documents" tab in eCompliance.

Sincerely,

Jocelyn Isley, MS, CIP
IRB Administrator, KU Lawrence Campus

Human Research Protection Program
Youngberg Hall | 2385 Irving Hill Rd | Lawrence, KS 66045 | (785) 864-7429 | research.ku.edu/hrpp

INFORMED CONSENT STATEMENT

The Department of Communication Studies at the University of Kansas supports the practice of protection for human subjects participating in the research. The following information is provided so that you can decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty.

This study intends to examine your communication with a Chinese student based on the student's Facebook profile. It is estimated that reading the scenario and completing the questionnaire will take 20-30 minutes of your time. You will receive 10 research credits when you are done.

There are no risks associated with your participation. The content of the questionnaire should cause no more discomfort than you would experience in your everyday life. Although participation may not benefit you directly, we believe that the information you provide will help us better understand intercultural relationships.

Your participation is solicited, but strictly voluntary. Your name will not be associated in any way with the research findings. No one other than the researchers will have access to your responses in this study. It is possible, however, with Internet communications, that through intent or accident someone other than the intended recipient may see your response. If you would like to get additional information concerning this study before or after it is completed, please feel free to contact us by phone or mail.

We appreciate your cooperation. Completion of the study indicates your willingness to participate and that you are over the age of eighteen. If you have any additional questions about your rights as a research participant, you may call (785) 864-7429 or (785) 864-7385, or write the Human Research Protection Program (HRPP), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email irb@ku.edu.

Sincerely,

Ning Liu
Principal Investigator
Department of Communication Studies
1440 Jayhawk Blvd., Room 408
University of Kansas
Lawrence, KS 66045
(785) 505-0536; nliu@ku.edu

Dr. Yan Bing Zhang
Faculty Supervisor
Department of Communication Studies
1440 Jayhawk Blvd., Room 101
University of Kansas
Lawrence, KS 66045-7574
(785) 864-9678; ybzhang@ku.edu

NOTE: You can copy and paste this Informed Consent Statement and save it in a document for your record; or if you prefer, please contact the Principal Investigator for a copy of the statement.

Subject #_____

The following questionnaire contains four sections.

Section I Demographic Information

Instructions: Please answer the following questions by checking applicable boxes and/or by filling in the blanks.

Your Sex
[ ] 1. Male
[ ] 2. Female

Your Ethnicity
[ ] 1. White/Caucasian
[ ] 2. Black American
[ ] 3. Hispanic/Latino
[ ] 4. Asian
[ ] 5. Native American
[ ] 6. Pacific Islander
[ ] 7. Biracial/Multiracial
[ ] 8. Other, please specify: _____.

Your Age
___ ___years old (2 digits, e.g., 21)

Your Major Field of Study
_____

Your Use of Facebook

Do you currently use Facebook?
[ ] 1. Yes
[ ] 2. No

Your Student Status
[ ] 1. Freshman
[ ] 2. Sophomore
[ ] 3. Junior
[ ] 4. Senior
[ ] 5. Master
[ ] 6. Ph.D.
[ ] 7. Other _____

How many years of education have you completed? (e.g., typically 12 years for completing through high school; 13 years for freshmen in college)

_____

To qualify for participation in this study, you need to be a Facebook user. If you are a Facebook user, please continue with the study. If you are not a Facebook user, you could exit now.

If you use Facebook, please provide your best estimate of how much time you spend on Facebook on a typical day _____hours _____minutes.

If you use Facebook, please provide your best estimate of how many friends you have on your Facebook friends list. Please provide your best estimate and write down the number: _____

How many international friends are there on your Facebook friends list? Please provide your best estimate and write down the number. For example, 1 means you have one international friend on Facebook; 2 means you have two international friends on Facebook: _____

How many people on your Facebook friends list are originally from China? Please provide your best estimate and write down the number. For example, 1 means you have one Chinese friend on Facebook; 2 means you have two Chinese friends on Facebook: _____

Section II: Email from the housing department

Instructions: The following questionnaire intends to examine your communication with a Chinese student. Imagine that you are about to start a new semester at your university. Before classes began, you applied for a residence hall. Recently, **you received an email from the housing department regarding your potential roommate**. The email is attached below. Please read the email carefully. When you finish reading the email, you will be asked to answer a few questions to demonstrate your understanding of the email.

From: Student Housing
Subjects: Room Selection Completed

Dear Resident,

Thank you so much for your application. We have a room assignment for you as requested. We believe it is a good match. You are going to share the room with Ming Chen. **She is an international student from China.** Ming Chen provided Student Housing with her Facebook profile page. You can visit **her Facebook page** to learn more about her. We encourage you to contact your roommate prior to your arrival on campus to familiarize yourself with each other and to discuss details of setting up your room. If you don't like our recommendation, please notify us at your earliest convenience. Student Housing will assign you another roommate.

Sincerely,
Student Housing

<u>Instructions:</u> Please answer the following questions to demonstrate your understanding of the email. Please indicate whether you think the statements are True (T) or False (F):

1. You were notified by the housing department that you were going to have a Chinese international student as your roommate.
   [ ] True [ ] False
2. Your Chinese roommate is named Ming Chen.
   [ ] True [ ] False
3. Your Chinese roommate (Ming Chen) is a female.
   [ ] True [ ] False
4. You can visit the Facebook page of Ming Chen.
   [ ] True [ ] False
5. You must share a room with the international student from China recommended.
   [ ] True [ ] False

Note: The version above is designed for female participants. An adapted version will be used for male participants.

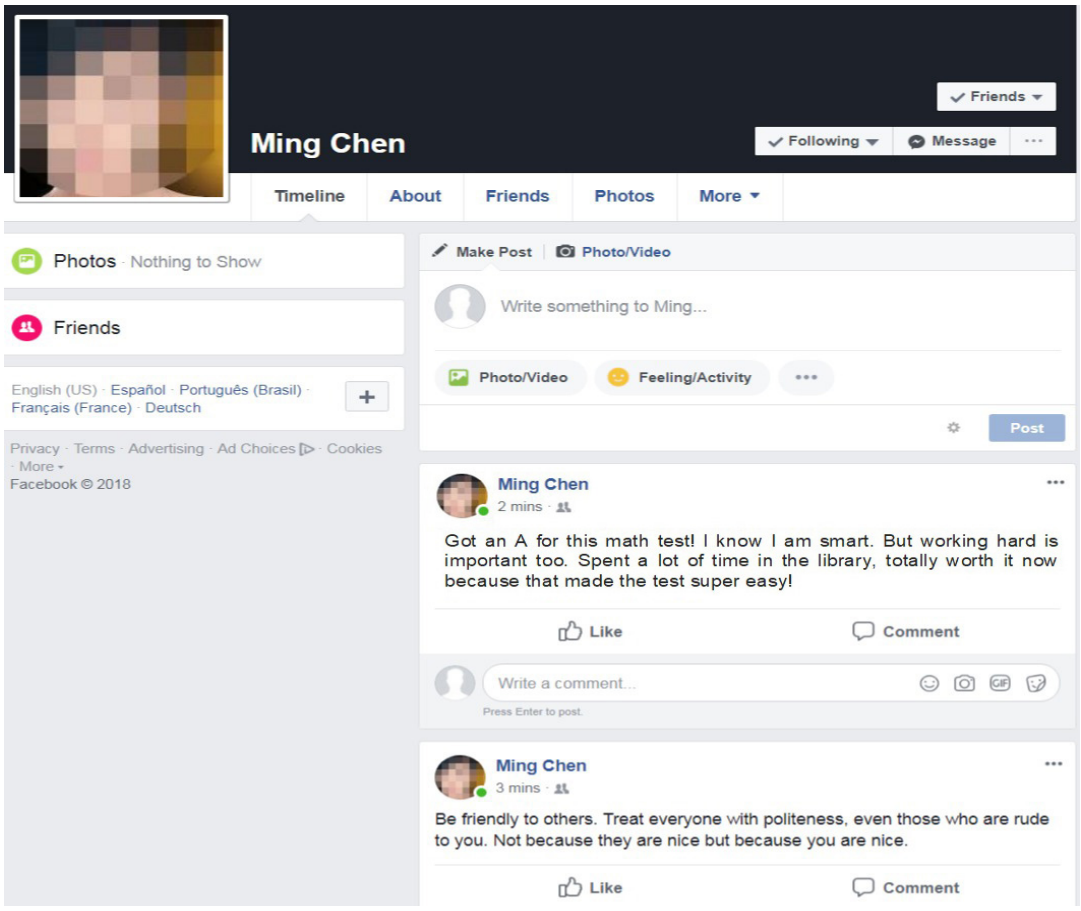
Section III: Facebook Profile Manipulation Check

<u>Instructions:</u> After reading the email from the Student Housing, you decide to visit Ming Chen's (your potential roommate) Facebook profile. You will view Ming Chen's Facebook profile on the next page. After viewing it, you will be asked to answer a few questions about Ming Chen. The profile photo has been blurred to protect the privacy of the individual pictured.

Click "Next" to view Ming Chen's Facebook profile

*****Assign participants to one of the Facebook profiles. For example, *****

After you leave Ming Chen's Facebook profile, you **CANNOT** go back to view the page again. You can take as much time as you need to view the profile. Try to remember the information as best as you can.



<u>Instructions</u>: The following statements measure your understanding of the statements made by Ming Chen (your potential roommate). Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. For example, if you strongly agree with the statement "Ming Chen (your potential roommate) described herself as smart and hardworking," select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Neutral**	**Somewhat Agree**	**Agree**	**Strongly Agree**
1. Ming Chen described herself as smart and hardworking.	1	2	3	4	5	6	7
2. Ming Chen described herself as nice and friendly.	1	2	3	4	5	6	7

3. Ming Chen described herself as annoying/ clueless.	1	2	3	4	5	6	7
4. Ming Chen described herself as not assimilated to the U.S culture and bad at English.	1	2	3	4	5	6	7

Note: In the version for male participants, the word "herself" will be replaced with "himself".

Instructions: Please mark on the scale below indicating **whether you think the statements made by Ming Chen (your potential roommate) are in general positive or negative**. Select 7 if you think Ming Chen's wall posts are extremely positive. Select 1 if you think Ming Chen's wall posts are extremely negative. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

"In general, the posts made by Ming Chen are…"

Negative	1	2	3	4	5	6	7	Positive

Instructions: The following statements measure your understanding of the statements made by **Taylor Jordan and Chris West (your potential roommate Ming Chen's Facebook friends)**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. For example, if you strongly agree with the statement "Based on the statements made by Taylor Jordan and Chris West, Ming Chen was smart and hardworking," select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Neutral**	**Somewhat Agree**	**Agree**	**Strongly Agree**
1. Based on the statements made by Taylor Jordan and Chris West, Ming Chen was smart and hardworking.	1	2	3	4	5	6	7
2. Based on the statements made by Taylor Jordan and Chris West, Ming Chen was nice and friendly.	1	2	3	4	5	6	7
3. Based on the statements made by Taylor Jordan and Chris West, Ming Chen was annoying/ clueless.	1	2	3	4	5	6	7

4. Based on the statements made by Taylor Jordan and Chris West, Ming Chen was not assimilated to the U.S culture and bad at English.	1	2	3	4	5	6	7

Instructions: Please mark on the scale below indicating **whether you think the statements made by Taylor Jordan and Chris West (your potential roommate's Facebook friends) are in general positive or negative**. Select 7 if you think the friends' comments are extremely positive. Select 1 if you think the friends' comments are extremely negative. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

"In general, the posts made by Taylor Jordan and Chris West (your potential roommate Ming Chen's Facebook friends) are…"

Negative	1	2	3	4	5	6	7	Positive

Instructions: The following questions measure whether you think **the posts made by Ming Chen (your potential roommate) are realistic or not**. Please answer the following questions on the 7-point scale below. For example, if the question asks you, "In general, how realistic do you think the posts made by Ming Chen are?" Select 7 if you think the posts are extremely realistic. Select 1 if you think the posts are not realistic at all. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Not at all			**Neutral**			**Extremely**
1. In general, how realistic do you think the **posts made by Ming Chen** are?	1	2	3	4	5	6	7
2. In general, how believable do you think the **posts made by Ming Chen** are?	1	2	3	4	5	6	7
3. In general, how likely would it be for you to see similar **posts made by Ming Chen** on others' Facebook feeds?	1	2	3	4	5	6	7

Instructions: The following questions measure whether you think **the posts made by Taylor Jordan and Chris West (Ming Chen's Facebook friend) are realistic or not**. Please answer the following questions on the 7-point scale below. For example, if the question asks you, "In general, how realistic do you think the posts made by Taylor Jordan and Chris West (Ming

Chen's Facebook friends) are?" Select 7 if you think the posts are extremely realistic. Select 1 if you think the posts are not realistic at all. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Not at all			Neutral			Extremely
1. In general, how realistic do you think the **posts made by Taylor Jordan and Chris West (**Ming Chen's Facebook friends) are?	1	2	3	4	5	6	7
2. In general, how believable do you think the **posts made by Taylor Jordan and Chris West** (Ming Chen's Facebook friends) are?	1	2	3	4	5	6	7
3. In general, how likely would it be for you to see similar **posts made by Taylor Jordan and Chris West** on others' Facebook feeds?	1	2	3	4	5	6	7

Instructions: Now you are going to view your potential roommate Ming Chen's Facebook profile again before you move forward to the next section. You can take as much time as you need. However, you **CANNOT** go back to view the page again. When you finish, click "Next" to continue, and you will be directed to a few questions.

*****Assign participants to the above Facebook profile again*****

Section IV: Questions relevant to the dependent variables

In this part, imagine that you are going to **take a mandatory class with Ming Chen**. In this class, you are required to work with Ming Chen **on a group project** through the whole semester. As this project accounts for 20% of your total grade, Ming Chen's performance may influence your final grade significantly. After viewing Ming Chen's Facebook page, please consider your perceptions about Ming Chen, talking with Ming Chen, and collaborating on this group project.

Please answer the following questions to demonstrate your understanding of the situation. Please indicate whether you think the statements are True (T) or False (F):

1. You and Ming Chen are going to take a mandatory class together.
   [ ] True [ ] False
2. You and Ming Chen are going to work together on a group project through the whole semester.

[ ] True [ ] False

3. This class project is important to you, because it accounts for 20% of the total grade.

[ ] True [ ] False

Instructions: After viewing Ming Chen's Facebook page, please think about **how you would feel about communicating with Ming Chen**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. For example, select 7 if you strongly agree with the statement "I may feel anxious in anticipating communication with Ming Chen face-to-face." If you strongly disagree with this statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

In anticipating communication with Ming Chen face-to-face …

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I may feel anxious.	1	2	3	4	5	6	7
2. I may feel awkward.	1	2	3	4	5	6	7
3. I may feel self-conscious.	1	2	3	4	5	6	7
4. I may feel irritated.	1	2	3	4	5	6	7
5. I may feel impatient.	1	2	3	4	5	6	7
6. I may feel defensive.	1	2	3	4	5	6	7
7. I may feel worried.	1	2	3	4	5	6	7
8. I may feel nervous.	1	2	3	4	5	6	7
9. I may feel insecure.	1	2	3	4	5	6	7

Instructions: Now please think about **whether you would trust Ming Chen** to complete this **group project or not**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I could trust Ming Chen to get our work done.	1	2	3	4	5	6	7
2. Ming Chen will not let me down.	1	2	3	4	5	6	7
3. Ming Chen is reliable.	1	2	3	4	5	6	7
4. In a difficult situation, I could rely on Ming Chen.	1	2	3	4	5	6	7
5. If I were absent from a group meeting, I would be confident in Ming Chen's ability to make	1	2	3	4	5	6	7

decisions without my involvement.							
6. If I were unable to monitor Ming Chen's work, I would be willing to trust Ming Chen to get the job done right.	1	2	3	4	5	6	7
7. I trust Ming Chen to do things I can't do by myself.	1	2	3	4	5	6	7
8. I do not trust Ming Chen.	1	2	3	4	5	6	7

Instructions: After viewing Ming Chen's Facebook page, please think about **whether Ming Chen and you could be friends or not**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Neutral**	**Somewhat Agree**	**Agree**	**Strongly Agree**
1. I think Ming Chen and I could be friends.	1	2	3	4	5	6	7
2. Ming Chen would be pleasant to be around.	1	2	3	4	5	6	7
3. Ming Chen would be sociable.	1	2	3	4	5	6	7
4. I could become close friends with Ming Chen.	1	2	3	4	5	6	7
5. Ming Chen would be easy to get along with.	1	2	3	4	5	6	7
6. Ming Chen and I could never establish a friendship with each other.	1	2	3	4	5	6	7

Instructions: Now please think about your perception of **Ming Chen's ability to work with you on this group project**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. Ming Chen is capable of getting the job done.	1	2	3	4	5	6	7
2. If I want to get this project done, I could depend on Ming Chen.	1	2	3	4	5	6	7
3. I could get most things accomplished with Ming Chen.	1	2	3	4	5	6	7
4. Ming Chen is probably a typical goof-off when assigned a job to do.	1	2	3	4	5	6	7
5. Ming Chen would be an efficient problem solver.	1	2	3	4	5	6	7

Instructions: After viewing Ming Chen's Facebook page, please think about **how much you would like to talk with Ming Chen**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I would like to talk with Ming Chen.	1	2	3	4	5	6	7
2. I would like to initiate conversations with Ming Chen.	1	2	3	4	5	6	7
3. I would like to chat with Ming Chen.	1	2	3	4	5	6	7
4. I would like to communicate with Ming Chen.	1	2	3	4	5	6	7
5. I don't want to talk with Ming Chen	1	2	3	4	5	6	7

Instructions: Now please think about **whether you are willing or unwilling to cooperate** with Ming Chen on this group project. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I am willing to cooperate with Ming Chen to get the group project done.	1	2	3	4	5	6	7
2. I am willing to share information with Ming Chen about the group project.	1	2	3	4	5	6	7
3. I am willing to spend time with Ming Chen to work on the group project.	1	2	3	4	5	6	7
4. I believe that dividing the work so that we could each work individually would be best.	1	2	3	4	5	6	7
5. Cooperation with Ming Chen will be the key to the success of this group project.	1	2	3	4	5	6	7

End of the Survey Message

You have reached the end of the survey.
Thank you for your participation!

After this, you will be redirected to a section for information about your instructor. You will receive extra credit for your participation in this survey. Please make sure you enter your name and instructor's name correctly so that you can receive your credit. The next section is not linked to the current survey, so your answers will be anonymous. After you complete everything, you will see a confirmation page to ensure that we have received your responses. Please print and keep the last page as confirmation of your participation in this research.

You will be redirected to the next section when you click "Next."

Appendix E: Questionnaire for the Main Study

Subject #_____

The following questionnaire contains four sections.

Section I Demographic Information

Instructions: Please answer the following questions by checking applicable boxes and/or by filling in the blanks.

Your Sex
[ ] 1. Male
[ ] 2. Female

Your Ethnicity
[ ] 1. White/Caucasian
[ ] 2. Black American
[ ] 3. Hispanic/Latino
[ ] 4. Asian
[ ] 5. Native American
[ ] 6. Pacific Islander
[ ] 7. Biracial/Multiracial
[ ] 8. Other, please specify: _____.

Your Age
___ ___years old (2 digits, e.g., 21)

Your Major Field of Study
_____

Your Use of Facebook

Do you currently use Facebook?
[ ] 1. Yes
[ ] 2. No

Your Student Status
[ ] 1. Freshman
[ ] 2. Sophomore
[ ] 3. Junior
[ ] 4. Senior
[ ] 5. Master
[ ] 6. Ph.D.
[ ] 7. Other _____

How many years of education have you completed? (e.g., typically 12 years for completing through high school; 13 years for freshmen in college)

_____

To qualify for participation in this study, you need to be a Facebook user. If you are a Facebook user, please continue with the study. If you are not a Facebook user, you could exit now.

If you use Facebook, please provide your best estimate of how much time you spend on Facebook on a typical day _____hours _____minutes.

If you use Facebook, please provide your best estimate of how many friends you have on your Facebook friends list. Please provide your best estimate and write down the number: _____

How many international friends are there on your Facebook friends list? Please provide your best estimate and write down the number. For example, 1 means you have one international friend on Facebook; 2 means you have two international friends on Facebook: _____

How many people on your Facebook friends list are originally from China? Please provide your best estimate and write down the number. For example, 1 means you have one Chinese friend on Facebook; 2 means you have two Chinese friends on Facebook: _____

If you use Facebook, **have you ever received negative comments or unpleasant messages** about yourself on your Facebook profile (e.g., living styles, behaviors, habits, or others)?
[ ] 1. Yes
[ ] 2. No

If you use Facebook, **have you ever seen someone post negative messages about themselves** on Facebook (e.g., about your living styles, behaviors, habits, or others)?
[ ] 1. Yes
[ ] 2. No

If you use Facebook, **have you ever seen someone leave negative comments** on others' Facebook posts (e.g., about your living styles, behaviors, habits, or others)?
[ ] 1. Yes
[ ] 2. No

Section II: Email from the housing department

Instructions: The following questionnaire intends to examine your communication with a Chinese student. Imagine that you are about to start a new semester at your university. Before classes began, you applied for a residence hall. Recently, **you received an email from the housing department regarding your potential roommate**. The email is attached below. Please read the email carefully. When you finish reading the email, you will be asked to answer a few questions to demonstrate your understanding of the email.

From: Student Housing
Subjects: Room Selection Completed

Dear Resident,

Thank you so much for your application. We have a room assignment for you as requested. We believe it is a good match. You are going to share the room with Ming Chen. **She is an international student from China.** Ming Chen provided Student Housing with her Facebook profile page. You can visit **her Facebook page** to learn more about her. We encourage you to contact your roommate prior to your arrival on campus to familiarize yourself with each other and to discuss details of setting up your room. If you don't like our recommendation, please notify us at your earliest convenience. Student Housing will assign you another roommate.

Sincerely,
Student Housing

Instructions: Please answer the following questions to demonstrate your understanding of the email. Please indicate whether you think the statements are True (T) or False (F):

1. You were notified by the housing department that you were going to have a Chinese international student as your roommate.
   [ ] True [ ] False
2. Your Chinese roommate is named Ming Chen.
   [ ] True [ ] False
3. Your Chinese roommate (Ming Chen) is a female.
   [ ] True [ ] False
4. You can visit the Facebook page of Ming Chen.
   [ ] True [ ] False

Note: The version above is designed for female participants. An adapted version will be used for male participants.

Section III: Facebook Profile Manipulation Check

Instructions: After reading the email from the Student Housing, you decide to visit Ming Chen's (your potential roommate) Facebook profile. You will view Ming Chen's Facebook profile on the next page. After viewing it, you will be asked to answer a few questions about Ming Chen. The profile photo has been blurred to protect the privacy of the individual pictured.

Click "Next" to view Ming Chen's Facebook profile

*****Assign participants to one of the Facebook profiles. For example, *****

After you leave Ming Chen's Facebook profile, you **CANNOT** go back to view the page again. You can take as much time as you need to view the profile. Try to remember the information as best as you can.

<u>Instructions</u>: The following statements measure your understanding of the statements made by Ming Chen (your potential roommate). Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. For example, if you strongly agree with the statement "Ming Chen (your potential roommate) described herself as smart and hardworking," select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. Ming Chen described herself as smart and hardworking.	1	2	3	4	5	6	7
2. Ming Chen described herself as nice and friendly.	1	2	3	4	5	6	7
3. Ming Chen described herself as annoying/ clueless.	1	2	3	4	5	6	7
4. Ming Chen described herself as not assimilated to the U.S culture and bad at English.	1	2	3	4	5	6	7

Note: In the version for male participants, the word "herself" will be replaced with "himself".

Instructions: Please mark on the scale below indicating **whether you think the statements made by Ming Chen (your potential roommate) are in general positive or negative**. Select 7 if you think Ming Chen's wall posts are extremely positive. Select 1 if you think Ming Chen's wall posts are extremely negative. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

"In general, the posts made by Ming Chen are…"

Negative	1	2	3	4	5	6	7	Positive

Instructions: The following statements measure your understanding of the statements made by **Taylor Jordan and Chris West (your potential roommate Ming Chen's Facebook friends)**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. For example, if you strongly agree with the statement "Based on the statements made by Taylor Jordan and Chris West, Ming Chen was smart and hardworking," select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. Based on the statements made by Taylor Jordan and Chris West, Ming Chen was smart and hardworking.	1	2	3	4	5	6	7

2. Based on the statements made by Taylor Jordan and Chris West, Ming Chen was nice and friendly.	1	2	3	4	5	6	7
3. Based on the statements made by Taylor Jordan and Chris West, Ming Chen was annoying/ clueless.	1	2	3	4	5	6	7
4. Based on the statements made by Taylor Jordan and Chris West, Ming Chen was not assimilated to the U.S culture and bad at English.	1	2	3	4	5	6	7

Instructions: Please mark on the scale below indicating **whether you think the statements made by Taylor Jordan and Chris West (your potential roommate's Facebook friends) are in general positive or negative**. Select 7 if you think the friends' comments are extremely positive. Select 1 if you think the friends' comments are extremely negative. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

"In general, the posts made by Taylor Jordan and Chris West (your potential roommate Ming Chen's Facebook friends) are…"

Negative	1	2	3	4	5	6	7	Positive

Instructions: The following questions measure whether you think **the posts made by Ming Chen (your potential roommate) are realistic or not**. Please answer the following questions on the 7-point scale below. For example, if the question asks you, "In general, how realistic do you think the posts made by Ming Chen are?" Select 7 if you think the posts are extremely realistic. Select 1 if you think the posts are not realistic at all. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Not at all			**Neutral**			**Extremely**
1. In general, how realistic do you think the **posts made by Ming Chen** are?	1	2	3	4	5	6	7
2. In general, how believable do you think the **posts made by Ming Chen** are?	1	2	3	4	5	6	7

3. In general, how likely would it be for you to see similar posts **made by Ming Chen** on others' Facebook feeds?	1	2	3	4	5	6	7

Instructions: The following questions measure whether you think **the posts made by Taylor Jordan and Chris West (Ming Chen's Facebook friend) are realistic or not**. Please answer the following questions on the 7-point scale below. For example, if the question asks you, "In general, how realistic do you think the posts made by Taylor Jordan and Chris West (Ming Chen's Facebook friends) are?" Select 7 if you think the posts are extremely realistic. Select 1 if you think the posts are not realistic at all. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Not at all			**Neutral**			**Extremely**
1. In general, how realistic do you think the **posts made by Taylor Jordan and Chris West (**Ming Chen's Facebook friends) are?	1	2	3	4	5	6	7
2. In general, how believable do you think the **posts made by Taylor Jordan and Chris West** (Ming Chen's Facebook friends) are?	1	2	3	4	5	6	7
3. In general, how likely would it be for you to see similar **posts made by Taylor Jordan and Chris West** on others' Facebook feeds?	1	2	3	4	5	6	7

Instructions: Now you are going to view your potential roommate Ming Chen's Facebook profile again before you move forward to the next section. You can take as much time as you need. However, you **CANNOT** go back to view the page again. When you finish, click "Next" to continue, and you will be directed to a few questions.

*****Assign participants to the above Facebook profile again*****

Section IV: Questions relevant to the dependent variables

In this part, imagine that you are going to **take a mandatory class with Ming Chen**. In this class, you are required to work with Ming Chen **on a group project** through the whole semester. As this project accounts for 20% of your total grade, Ming Chen's performance may influence

your final grade significantly. After viewing Ming Chen's Facebook page, please consider your perceptions about Ming Chen, talking with Ming Chen, and collaborating on this group project.

Please answer the following questions to demonstrate your understanding of the situation. Please indicate whether you think the statements are True (T) or False (F):

1. You and Ming Chen are going to take a mandatory class together.
   [ ] True [ ] False
2. You and Ming Chen are going to work together on a group project through the whole semester.
   [ ] True [ ] False
3. This class project is important to you, because it accounts for 20% of the total grade.
   [ ] True [ ] False

Instructions: After viewing Ming Chen's Facebook page, please think about **how you would feel about communicating with Ming Chen**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. For example, select 7 if you strongly agree with the statement "I may feel anxious in anticipating communication with Ming Chen face-to-face." If you strongly disagree with this statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

In anticipating communication with Ming Chen face-to-face …

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I may feel anxious.	1	2	3	4	5	6	7
2. I may feel awkward.	1	2	3	4	5	6	7
3. I may feel self-conscious.	1	2	3	4	5	6	7
4. I may feel irritated.	1	2	3	4	5	6	7
5. I may feel impatient.	1	2	3	4	5	6	7
6. I may feel defensive.	1	2	3	4	5	6	7
7. I may feel worried.	1	2	3	4	5	6	7
8. I may feel nervous.	1	2	3	4	5	6	7
9. I may feel insecure.	1	2	3	4	5	6	7

Instructions: Now please think about **whether you would trust Ming Chen** to complete this **group project or not**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree

1. I could trust Ming Chen to get our work done.	1	2	3	4	5	6	7
2. Ming Chen will not let me down.	1	2	3	4	5	6	7
3. Ming Chen is reliable.	1	2	3	4	5	6	7
4. In a difficult situation, I could rely on Ming Chen.	1	2	3	4	5	6	7
5. If I were absent from a group meeting, I would be confident in Ming Chen's ability to make decisions without my involvement.	1	2	3	4	5	6	7
6. If I were unable to monitor Ming Chen's work, I would be willing to trust Ming Chen to get the job done right.	1	2	3	4	5	6	7
7. I trust Ming Chen to do things I can't do by myself.	1	2	3	4	5	6	7

Instructions: After viewing Ming Chen's Facebook page, please think about **whether Ming Chen and you could be friends or not**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Neutral**	**Somewhat Agree**	**Agree**	**Strongly Agree**
1. I think Ming Chen and I could be friends.	1	2	3	4	5	6	7
2. Ming Chen would be pleasant to be around.	1	2	3	4	5	6	7
3. Ming Chen would be sociable.	1	2	3	4	5	6	7
4. I could become close friends with Ming Chen.	1	2	3	4	5	6	7
5. Ming Chen would be easy to get along with.	1	2	3	4	5	6	7

Instructions: Now please think about your perception of **Ming Chen's ability to work with you on this group project**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. Ming Chen is capable of getting the job done.	1	2	3	4	5	6	7
2. If I want to get this project done, I could depend on Ming Chen.	1	2	3	4	5	6	7
3. I could get most things accomplished with Ming Chen.	1	2	3	4	5	6	7
4. Ming Chen would be an efficient problem solver.	1	2	3	4	5	6	7

Instructions: After viewing Ming Chen's Facebook page, please think about **how much you would like to talk with Ming Chen**. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I would like to talk with Ming Chen.	1	2	3	4	5	6	7
2. I would like to initiate conversations with Ming Chen.	1	2	3	4	5	6	7
3. I would like to chat with Ming Chen.	1	2	3	4	5	6	7
4. I would like to communicate with Ming Chen.	1	2	3	4	5	6	7

Instructions: Now please think about **whether you are willing or unwilling to cooperate** with Ming Chen on this group project. Please indicate the extent to which you agree or disagree with the following statements using the 7-point scale below. If you strongly agree with the statement, select 7. If you strongly disagree with the statement, select 1. Otherwise, select a number between 2 and 6 that reflects your assessment of the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I am willing to cooperate with Ming Chen to get the group project done.	1	2	3	4	5	6	7
2. I am willing to share information with Ming Chen about the group project.	1	2	3	4	5	6	7
3. I am willing to spend time with Ming Chen to work on the group project.	1	2	3	4	5	6	7
4. Cooperation with Ming Chen will be the key to the success of this group project.	1	2	3	4	5	6	7

End of the Survey Message

You have reached the end of the survey.
Thank you for your participation!

After this, you will be redirected to a section for information about your instructor. You will receive extra credit for your participation in this survey. Please make sure you enter your name and instructor's name correctly so that you can receive your credit. The next section is not linked to the current survey, so your answers will be anonymous. After you complete everything, you will see a confirmation page to ensure that we have received your responses. Please print and keep the last page as confirmation of your participation in this research.

You will be redirected to the next section when you click "Next."