Latinx’s Attention to Social Context: A Comparison with European Americans and East Asians Living in the U.S.

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Abstract: Prior research shows that collectivistic East Asians are more sensitive to contextual information than individualistic Americans. However, limited studies have explored other collectivistic societies, such as the Latinx. Extending the current literature, we investigated attention to social context among Latinx living in the United States. Two tasks were used to test how Latinx (N=260) incorporate social context information when making attributions as compared to European Americans (N=220) and East Asians (N=144) living in the United States. In Task 1, participants made attributions about their friend’s career choice. In Task 2, participants made attributions about a character experiencing constraints in a semi-real-life situation. The findings demonstrated that when making attributions, East Asians were more attentive to social context than European Americans. Furthermore, Latinx were attentive to social context like the East Asians, but findings were not consistent across tasks. Results are discussed as a function of cultural frameworks, specifically from the perspectives of European American and East Asian cultures, and from the Latinx cultures. The role of collectivism on holistic thinking and practical implications of culture-driven attention style are discussed. Directions for future research are also suggested.

Keywords: attribution styles, attention to social context, culture, cultural differences, Latinx.

When explaining others’ attributes, behaviors, and emotions, people from different cultures are attentive to different types of information (e.g., Choi & Nisbett, 1998; Masuda & Kitayama, 2004; Miyamoto & Kitayama, 2002). For instance, media outlets from different cultures tended to use different attributional styles to explain an incident involving Serena William in the 2018 U.S. Open women’s final. In the tournament, this popular tennis player and a 23-time grand slam champion was penalized for calling the chair umpire a thief in an extended argument. The chair umpire cited Serena for three code violations during the game: one for getting coaching signals; one for breaking her racket—which cost her a point—and one for calling the chair umpire a thief, which cost her a game. After being warned for getting coaching signals, Serena argued with the

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chair umpire, saying that she had never cheated in her life, and asked for an apology. Following the unresolved argument, Serena told the chair umpire forcefully, “You stole a point from me. You’re a thief, too.” Soon after, the chair umpire penalized Serena for a game. The moment received worldwide attention as Serena Williams accused the umpire of sexism. She believed that she was treated more harshly on the basis that she is a woman. “For me to say thief, and for him to take a game, it made me feel like it was a sexist remark. He’s never taken a game from a man because they said thief.” Serena said in an interview. After the incident, ETtoday, a Taiwanese news agency, stated that Serena was targeted because she is a woman of color. The news agency further reported Serena’s great sportsmanship even when she lost the game. On the other hand, The Telegraph, a British news agency chastised Serena by calling her argument a furious rant. News media from different cultures explained Serena’s reaction to the chair umpire differently. East Asian media used more information from the context and considered Serena’s behavior appropriate. Media from Western cultures paid attention to Serena’s behavior, thus considered her action inappropriate.

The exploratory media analyses, done by the first author to the Serena incident, illustrate how behaviors are explained differently depending on culture. A relevant study has also reported similar findings. Morris and Peng (1994) showed that Chinese-language U.S. newspapers (i.e., World Journal) used more situational explanations, such as workplace stress and social roles, when describing the causes of a murder case. English-language U.S. newspapers (i.e., The New York Times), on the other hand, made more mentions of dispositional causes, such as the murderer’s emotional crisis or character flaw. In this investigation, we aim to explore how Latinx living in the U.S. use contextual information in social scenarios, and we compare them to East Asians and European Americans living in the U.S. For instance, would Latinx view Serena Williams’ behavior as the result of contextual factors more than European Americans? Are Latinx and East Asians similar or different in the way they make attributions?

**Attention to Context: The Case of East Asians and European Americans**

Cultural scientists have proposed that thinking styles are influenced by cultural approaches to how the self is viewed in relation to social context (Varnum et al., 2010). East Asians, for example, have also been described as collectivistic. They define the self in relation to others, and their behaviors as being contingent on the broader social context (Markus & Kitayama, 1991). In contrast, European Americans are described as individualistic. Individuals see the self as an independent entity, and their behaviors reflect their internal attributes. People are viewed as autonomous with distinctive attributes (Markus & Kitayama, 1991, 1994). Accordingly, cultural values such as viewing the self in connection with or independent of others may influence how people pay attention to context in social settings (Masuda et al., 2008).

Research shows that cultural orientations are associated with holistic versus analytic habits (Varnum et al., 2010). Norenzayan and Nisbett (2000) theorized that the different intellectual traditions in East Asian cultures and the West influence the differences in people’s attention to context. For example, East Asians not only are collectivistic but they are more influenced by the ancient Chinese philosophies (e.g., Confucianism, Buddhism, Taoism), which leads to a more holistic pattern of attention by emphasizing the field in which the object is found and explaining the behaviors of the object in terms of its relations to the field. In contrast, Westerners who are individualistic are more influenced by ancient Greek philosophies (e.g., Platonism, Aristotelianism, Monotheism), which leads to a more analytic pattern of attention by categorizing the object in
reference to its attributes and explaining its behaviors using rules such as category memberships. According to Nisbett and colleagues (2001), East Asians tend to engage in context-dependent perceptual processes by attending to the relation between the object and the context in which the object is located. Westerners tend to engage in context-independent perceptual processes by focusing on the salient object independently of its context. For example, Masuda and colleagues (2008) tested whether the Japanese and Americans differ in their attention to social context when judging people’s emotions. Specifically, the authors presented participants with cartoon images depicting a focal individual who displayed facial expressions that were either the same as or different from the emotions expressed by four other individuals in the background. The study found that Japanese participants were influenced by the emotions displayed by the background figures when judging the focal person’s emotions. On the contrary, American participants were unaffected by the emotions displayed by the background figures and focused on the focal character’s emotions. The authors concluded that the Japanese use contextual information when making emotional judgments, while Americans tend to rely on the individual characteristics of the focal person.

One of the implications of holistic and analytic thinking is the tendency to make internal versus external attributions. For example, it is possible that East Asian cultures would be more likely to view Serena Williams’ behavior because of contextual reasons (e.g., she argued with the chair umpire because she was discriminated against) than European Americans. Indeed, research has shown that East Asians are less susceptible to the fundamental attribution error. The fundamental attribution error is defined as the failure to recognize the importance of situational influences on other people’s behaviors and the tendency to overemphasize the importance of dispositions in explaining others’ behaviors (Ross, 1977). The fundamental attribution error has been typically tested using the attitude inference task. In this task, participants are presented with an essay or vignette supporting (or opposing) a position assigned to the essay writer. Then, the participants are asked to infer the true attitude of the writer (see Jones & Harris, 1967). Using this approach, studies have found that European Americans are more likely to explain others’ behaviors based on dispositions than East Asians, even when the situational influences are explicitly emphasized. The attitude inference task has been used in multiple cultural studies with some methodological amendments, and in general, those studies demonstrate that East Asians are less likely to fall prey of the fundamental attribution error than European Americans (see Choi & Nisbett, 1998; Masuda & Kitayama, 2004; Miyamoto & Kitayama, 2002; cf. Krull et al., 1999).

Attention to Context: The Case of Latinx Cultures

Most of the studies reviewed so far focus on East Asian and European American populations, and little is known about how Latinx cultures make attributions. Although Latinx populations are also considered collectivist and interdependent (Hofstede, 1980), East Asians and Latinx differ in fundamental ways (Campos & Kim, 2017). First, socially, Latinx show their interdependence by emphasizing familism, defined as a cultural value that promotes closeness to the family (Campos et al., 2014; Steidel & Contreras, 2003). Latinx value strong family loyalty and putting the well-being of family as priority. Whereas for East Asians, collectivism is oriented toward protecting existing relationships and avoiding the costs of conflicts (Hashimoto et al., 2012). East Asians are embedded within their group identity in which being different brings shame to the group. Different from Latinx cultures, East Asians prioritize group harmony over personal needs and emphasize modesty.
Second, emotionally, Latinx value showing positive emotions in their interactions, as demonstrated by Simpatia, a cultural value that promotes agreeable and smooth social relationships. The value is manifested through affectionate sociability in which Latinx are expressive with their positive feelings (Holloway et al., 2009; Ramírez-Esparza et al., 2019; Rodríguez-Arauz et al., 2019). In comparison, East Asians value moderating the experience and expression of positive emotions (Senft et al., 2021). Although East Asians also have the tendency to avoid negative social behaviors, they manifest the value through inhibiting emotional expression to look calm and polite.

Finally, Latinx do not share the influence of ancient Chinese philosophies with East Asians (Norenzayan & Nisbett, 2000). In Latinx cultures, Christianity is the major religion and is often linked to independent view of selfhood. The belief that each individual has unique relationship with God advances the notions of self-sufficiency, self-autonomy, and self-reliant—in marked contrast to Chinese philosophies that affirm humans’ dependence on circumstances (Krys et al., 2022). Therefore, it is important to test whether Latinx cultural values are expressed similarly to East Asians when making attributions. There is some evidence that Latinx use holistic thinking (de Oliveira & Nisbett, 2017); however, whether they use it equally as East Asians remains an open question. The few studies published in this field have demonstrated mixed and inconclusive results. Next, we describe these studies.

Lechuga and colleagues (2011) validated and used a scale to assess holistic reasoning among Mexicans living in Mexico. The authors found that compared to U.S. participants, Mexicans showed more holistic thinking for some subscales but not others; however, their means were not comparable to Koreans, who scored higher on holistic thinking. In a more recent study, de Oliveira and Nisbett (2017) conducted five independent studies to test if Brazilians rely on holistic thinking as East Asians. Their findings were inconsistent across approaches. In some of the methodologies, Brazilians were more holistic than European Americans, but at times less, more, or equally holistic than East Asians. In one of their studies that is relevant to this study, the authors tested the degree that participants focus on social context using Masuda et al.’s study methodology. Specifically, participants were presented with cartoon images depicting a focal individual who displayed facial expressions that were either the same as or different from the emotions expressed by four other individuals in the background. The participants were then asked to judge the focal character’s emotions. The results revealed that Brazilians paid attention to context more than European Americans for angry and sad faces. Chinese participants focus on context more than both European Americans and Brazilians. No differences in culture were found for angry faces. Overall, the findings from this study demonstrated that Brazilians do not pay attention to context as much as the Chinese, but they do it more than European Americans.

Studies reviewed so far within the Latinx community are inconclusive and scarce. In this study, we aim to add evidence about how Latinx pay attention to context when making attributions and how they compare to European Americans and East Asians. Specifically, we use an approach that adds to the literature by emphasizing attention to context in social scenarios. For example, would Latinx be more likely than European Americans to view Serena Williams’ argument with the chair umpire because of contextual variables and thus consider her behavior appropriate? To our knowledge, the implications of attention to context in social scenarios have not been explored before among the Latinx community. Although it is well known, for example, that East Asians are less likely to make dispositional attributions than European Americans, even when the situational influences are explicitly emphasized (Choi & Nisbett, 1998; Masuda & Kitayama, 2004; Miyamoto & Kitayama, 2002; cf. Krull et al., 1999); no studies have explored how Latinx use situational constraints to make attributions. Furthermore, as discussed in this section, the relevant studies on
holistic thought have only focused on Mexicans and Brazilians, and there are no studies among Latinx living in the U.S. Therefore, we focus on Latinx living in the U.S. and compare them to individuals also living in the U.S. who can be categorized as individualistic and analytic (European Americans; e.g., Fernandez et al., 1997; Hofstede, 1980; Markus & Kitayama, 1991; Oyserman et al., 2002) and collectivistic and holistic (East Asians; e.g., Brewer & Chen, 2007; Fernandez et al., 1997; Hofstede, 1980; Markus & Kitayama, 1991; Oyserman et al., 2002).

**Goals and Study Overview**

In the current study, we explored attention to context in social scenarios among people of Latinx, East Asian, and European heritage currently living in the U.S. Specifically, we define Latinx, East Asian, and European American as three cultural groups with distinct ancestries. In the United States, cultural ancestry refers to an individual’s ethnic origin or descent, cultural roots or heritage, or the place of birth of the individual, the individual’s parents, or ancestors before their arrival in the United States (U.S. Census, 2022a). In the current work, we define Latinx as individuals with Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish cultural ancestries. East Asians are defined as individuals who have cultural ancestries in East Asian subcontinents including but not limited to China, Japan, South Korea, and Taiwan. Whereas European Americans are individuals who have cultural ancestries in Europe, the Middle East, or North Africa subcontinents (U.S. Census, 2022a). Given that Latinx is considered as an ethnic category that includes various racial identifications (U.S. Census, 2022b), this study further defines Latinx as individuals who have Latinx cultural ancestries and identified with Hispanic/Latinx ethnicity. To reflect the racial categorization of United States Census Bureau (2022c), we further define East Asians as people who identified with East Asian racial category in addition to their cultural ancestries. Similarly, European Americans are individuals with European American cultural ancestries who identified as racially White.

Our primary goal was to observe if Latinx significantly differs from the better-studied pattern of attention-focus among European Americans and East Asians. Specifically, attention to context for Latinx is consistent with the idea that collectivism is associated with holistic thinking, just like has been previously demonstrated for East Asians (e.g., Varnum et al., 2010) and therefore complements the few studies that have tested this idea (e.g., de Oliveira & Nisbett, 2017; Lechuga et al., 2011). To achieve this goal, participants from Latinx, East Asian, and European backgrounds living in the U.S. were recruited and asked to participate in two tasks.

In the first task, we asked participants to attribute their best friend’s choice of major in an open-ended format (adapted from Nisbett et al., 1973). Nisbett and colleagues found that college students tended to explain their friend’s choice of major as being due to dispositions possessed by their friend much more than the properties of the major. The authors then concluded that when people explain others’ choices, they tend to attribute causality to the person's dispositions (Nisbett et al., 1973). However, this approach has not been explored cross-culturally. We hypothesized that East Asian participants would use more external reasonings than European Americans when explaining why their best friend chose their major. In contrast, European Americans would rely more on dispositional reasonings. We do not make specific hypotheses about Latinx, given that the studies with this group are scarce and inconsistent.

For the second task, participants were asked to complete attribution questions regarding a video stimulus. The video portrayed an animated office worker experiencing situational constraints to mirror the studies that tested the fundamental attribution error using the attitude inference task cross-culturally (e.g., Choi & Nisbett, 1998; Masuda & Kitayama, 2004; Miyamoto & Kitayama,
However, the situational constraint in the video reflects a social constraint, like the one Serena Williams experienced in the 2018 U.S. Open women's final. Specifically, just as Serena starts the game behaving professionally, the video portrays an animated office worker who is diligent and hardworking. Then, just as Serena starts to experience pushback from the chair umpire, the video shows that the office worker is constantly bullied by the office director, who expects the office worker to work extra hours and overnight. Then, just as Serena demonstrates her anger towards the chair umpire by blaming him of being a thief, in the end, the video portrays the office worker revenging the office director in an aggressive and brutal way in front of others. After watching the video, participants were asked to indicate the degree that they thought the office worker’s behavior at the end of the video was considered appropriate or inappropriate. We speculated that if the participants paid attention to the social context, then the participants would consider the behavior appropriate, given that her reaction was appropriate following the constant bullying from the office director. Further, we hypothesized that the focus on social context would vary across groups: East Asians would consider contextual information more than European Americans would and view irritable behavior as more appropriate. Given the lack of consistent findings among Latinx, we do not make a specific hypothesis for this group.

Next, to explore whether participants consider the social constraint when making internal attributions, we asked them to rate how violent and gentle they thought the office worker was. If participants focus on the social context, they should view the office worker as more gentle than violent, regardless of the irritable behavior at the end of the video. Vice versa, if participants ignore the social context, they should rate the office worker as more violent than gentle, considering the office worker’s brutal revenge at the end of the video. Further, we hypothesized that European Americans would make more internal attributions by rating the office worker as more violent than gentle. In contrast, East Asians rate the office worker as more gentle than violent. No specific hypotheses were formulated for Latinx, given the lack of consistent findings for this group in the literature.

Importantly, many of the represented literature reviewed for East Asian and European American populations were published two decades ago. As the East-West difference in thinking style is well-established, more recent investigations of the topic is relatively scarce. Thus, revisiting attention to context framework in the East-West cultural sphere and exploring the understudied Latinx culture will shed light on the current understanding. We argue that in addition to provide a newer outlook in East-West differences and to filling the Latinx gap in cross-cultural research, the current work has practical values in multicultural context such as the “melting pot” of American society (Hirschman, 1983). Given the changes in the country’s demographics, the U.S. cultural landscape has become blurry, with people of Latinx ancestries represent the largest share of cultural groups in the U.S. (U.S. Census, 2022b). Latinx acculturate into the American culture and their cognitive styles may be modified in accordance with the affordances of living in the host culture (Kitayama et al., 1997). Accordingly, stakeholders may follow the “one-size-fits-all” assumption in addressing intergroup relations. With this approach, the Latinx experiences are overlooked and challenged, as reflected in recent movements advocating Latinx rights (e.g., 2022 protests at Summit of the Americas). Thus, the current study takes an initiate step to explore cultural variations in attention to context. Through investigating culture-driven cognitive style, we can provide understanding of the fundamental value differences across cultures. Practically, stakeholders can consider these implications when making decisions for educational, social, and economic policies.
Methods

Design and Participants

Participants who were 18 years old and above were eligible to participate in the study. Most students participated in the study to earn course credits for the introductory psychology classes. Some participants earned extra course credits for their participation upon agreement with their course instructors. We also recruited participants through word-of-mouth and advertisements within student organizations.

The study is a part of a project investigating humans’ psychological processes. Measures that are out of the scope of the current study are not discussed. We conducted the study via the online questionnaire software Qualtrics. Participants first read the information sheet; then, they were instructed to complete the demographic questions. These questions included age, gender, socioeconomic status, educational background, race, ethnicity, and place of birth. We also asked culture-related questions such as cultural identity, cultural affiliations, and heritage cultures. Then, we directed the participants to the two social attribution tasks. The first task was the open-ended question regarding the reason for their best friend’s choice of major. Then, participants watched a 6-minute silent animation with subtitles. Following the video, participants completed the attribution task, in which we asked participants to make attributions about the character’s irritable behavior and to attribute the character’s personality. Upon completion, a debriefing sheet was presented.

A total of 624 students (mean age = 19.73, $SD = 2.81$; 494 females, 129 males, 1 others) participated in the study. Among which, 549 participants were recruited from the University of Connecticut, and 75 participants were recruited from the University of Florida. Participants were divided into three groups according to their cultural backgrounds (see below). Because there was no differential effect of the recruitment method, we collapsed participants recruited from different universities. Additionally, preliminary analyses did not show strong gender effects in the results. We first performed a series of one-way ANOVA to test the differences across gender in all outcome measures. The results revealed that there were no statistically significant differences in all outcome measures between male, female, and other gender ($p_s > .05$). Next, we explored the gender effect for each cultural group. For European Americans, one-way ANOVA analyses showed that there were no statistically significant differences in all outcome measures between male, female, and other gender ($p_s > .05$). For both East Asian and Latinx, a series of independent sample t test revealed that there were no statistically significant differences in all outcome measures between male and female ($p_s > .05$). Hence, we will not discuss gender further. This study received approval from University of Connecticut Institutional Review Board (IRB). All participants followed the same procedures according to the IRB protocols to complete the study.

Cultural Characteristics of The Sample

European American Participants

Students were considered European Americans if they identified as racially White, if they were born in the U.S., and if their primary language was English. The final sample was 220 (mean age = 19.34, $SD = 1.85$; 176 females, 43 males, 1 others) undergraduate students. When asked about their parents’ socioeconomic status (SES) on a 5-point Likert scale ranging from 1 (working
class) to 5 (upper class), they indicated an average of 3.35 (SD = 0.8). Regarding participants’ cultural ancestry, all participants identified as non-Latinx European Americans.

East Asian Participants

The participants were considered if they identified as racially East Asians (i.e., Chinese, Taiwanese, Korean, or Japanese). The final sample was 144 (mean age = 21.13, SD = 3.77; 113 females, 31 males). Most of them were undergraduates, except for 22 (15.3%), who indicated that they have postgraduate or equivalent degrees. When asked about their parents’ SES on a 5-point Likert scale ranging from 1 (working class) to 5 (upper class), they indicated an average of 3.05 (SD = 0.88). Regarding participants’ cultural ancestry, the majority of the participants identified with Chinese cultures (n = 132, 91.7%), while others identified with Taiwanese (n = 4, 2.8%), Japanese (n = 2, 1.4%), and Korean cultures (n = 6, 4.2%). Additionally, 107 (74.3%) East Asian participants indicated that they were born outside of the U.S. while 37 (25.7%) were born in the U.S.

Latinx Participants

The participants were considered if they identified as ethnic Hispanic/Latinx. The final sample was 260 (mean age = 19.27, SD = 2.61; 205 females, 55 males) undergraduate students. When asked about their parents’ SES on a 5-point Likert scale ranging from 1 (working class) to 5 (upper class), they indicated an average of 2.69 (SD = 1.1). Regarding participants’ cultural ancestry, most of them identified as Mexican (n = 61, 23.5%) or Puerto Rican (n = 50, 19.23%) while others identified with a variety of Latinx cultures (44.6%; i.e., Peruvian, Ecuadorian, Cuban, Dominican, Colombian, Guatemalan, Venezuelan, Argentinian, Brazilian, Hondurans, Costa Rican, Chileans, El Salvadorian, Bolivian, Nicaraguan, and Paraguayan). Respecting the place of birth, 37 (14.2%) Latinx participants were born in Puerto Rico or Latin American countries, and 223 (85.8%) were born in the U.S.

Social Attribution Tasks

Attention to Context When Explaining Others’ Behaviors

We adopted the methodology used in Nisbett et al. (1973); we asked participants to attribute their best friend’s choice of major. Participants provided their answers to the question “Why did your best friend choose their major?” in an open-ended format. Nisbett and colleagues (1973) explored whether people are inclined to attribute other’s behavior to stable attitudes and traits of the person. In this study, participants were asked to write a brief paragraph explaining why their best friend had chosen their college major. The responses were further coded as major-based reasons or friend’s dispositions. The authors found that college students tended to explain their friend’s choice of major as being due to dispositions possessed by their friend much more than the properties of the major. The authors then concluded that when people explain others’ choices, they tend to attribute causality to the person’s dispositions (Nisbett et al., 1973). Using open-ended question approach gives room to participants to express their thoughts freely. It is especially useful in research of implicit attention as this method does not prime participants to respond according to the question prompt. Moreover, this approach has not been explored cross-culturally. Thus, in the
current study we adopted the open-ended question approach to explore how participants attribute their friend’s choice of major.

Four coders further analyzed the responses under dispositional and external attribution categories. One coder comes from European American cultural background, two from Latinx cultural backgrounds, and one from an East Asian cultural background. Each response was given a dichotomous score of either 0 or 1 to show whether the participant mentioned the dispositional reasoning (0 = did not mention the dispositional explanation; 1 = mentioned the dispositional explanation) and the external reasoning (0 = did not mention the external explanation; 1 = mentioned the external explanation).

Before coding, each coder was given a codebook that included practice responses. For instance, the response “That's what they like and find it very interesting to them.”, would score 1 for dispositional reasoning and 0 for external reasoning. Additionally, a participant with the response “I think she chose the major because she likes it and the major is more popular.”, would score 1 for dispositional reasoning and 1 for external reasoning. The dispositional reasoning score and the external reasoning score were analyzed independently. Two trained coders coded each response. Considering that coders’ cultural backgrounds may influence the perception of attribution styles, we ensured that at least one coder’s cultural backgrounds fit with the participant’s (e.g., an East Asian coder codes an East Asian participant’s response). The coders agreed upon 82.5% of the coding, and we resolved the incongruencies by paying attention to the cultural backgrounds of the coders. For the scores that the two coders disagree on, we used the scores coded by the coder who shared the participant’s cultural backgrounds for the final analysis. We used this approach because how people explain others’ behaviors differ as a function of culture. Coders who have the same cultural backgrounds with the participant may share similar thinking styles, and thus analyze the participant’s responses more accurately.

**Attention to Social Context in Real-Life Scenarios**

To explore the cultural differences in attention to the social context in real-life situations, we developed an attribution task based on the attitude inference model in constrained scenarios (Choi & Nisbett, 1998; Masuda & Kitayama, 2004; Miyamoto & Kitayama, 2002). We first presented participants with a 6-minute animation portraying a red panda’s daily life as an office worker. We used an animated video to make the stimulus transcultural as the animal character did not represent specific cultures. We edited and combined episodes one and seven (season one) of the Japanese animation, *Aggretsuko* (Luegenbiehl et al., 2016) to create a short video clip. The video mirrored the incident of Serena Williams; the situational constraint in the video reflected a social constraint, like the one Serena Williams experienced in the 2018 U.S. Open women’s final. We first showed that the diligent red panda is under extreme social constraint in which she is constantly persecuted by the office director. This portion of the video mirrored the constraint Serena experienced from the chair umpire. Then, the video portrayed the office worker’s irritable behavior towards the office director, which mirrored that Serena angrily blaming the chair umpire being a thief. We played the video in silence with subtitles to avoid potential bias in auditory processes. Prior to the study, we pretested the video content with pilot participants from different cultural backgrounds. All pilot participants understood the video; thus, we used the video for the study. The video stimulus is openly available in the Open Science Framework.
To examine how participants attributed the red panda’s aggressive behavior, we asked participants to infer the appropriateness of the red panda’s irritable behavior on a 7-point Likert scale, from 1 (extremely inappropriate) to 7 (extremely appropriate). If participants considered the external factors, such as the demanding director and the stressful working environment, they would be more likely to see the red panda’s behavior as appropriate. Hence, higher scores indicated more consideration for external factors.

To assess whether participants considered the social constraint when making internal attributions, we asked participants to rate how violent and gentle they thought the red panda is on a 7-point Likert scale, from 1 (extremely not) to 7 (extremely) (Tukachinsky, 2020). Higher scores represented attributing the red panda as more violent and more gentle.

Results

Attention to Context When Explaining Others’ Behaviors

To examine the attribution styles of European American, East Asian, and Latinx individuals, we asked participants to attribute the reasons for their best friend’s choice of major (adapted from Nisbett et al., 1973). The dispositional and the external attribution scores were imputed to a 3 by 2 repeated measures ANOVA, with one between-subjects variable (cultural group: European Americans, East Asians, the Latinx) and one within-subjects variable (attribution style: dispositional, external).

The results showed that the interaction between cultural group and attribution style was significant, $F(2, 589) = 8.2, p < .01, \eta^2 = 0.03$. The pertinent scores were plotted in Figure 1. European Americans used significantly more dispositional attributions ($M = 0.77, SD = 0.42$) than external attributions ($M = 0.33, SD = 0.47$), $t(216) = 8.42, p < .01, d = 0.57$. East Asians did not differ in their tendency of using dispositional attributions ($M = 0.58, SD = 0.49$) and external attributions ($M = 0.51, SD = 0.50$) when explaining their friend’s behavior, $t(129) = 0.96, p = 0.34, d = 0.08$. Similar to European Americans, the Latinx used significantly more dispositional attributions ($M = 0.74, SD = 0.44$) than external attributions ($M = 0.46, SD = 0.5$), $t(244) = 5.41, p < .01, d = 0.35$.

Moreover, for the dispositional attribution score, European American, East Asian, and Latinx participants differed significantly, $F(2, 591) = 7.83, p < .01, \eta^2 = 0.026$. European Americans ($M = 0.77, SD = 0.42$) had the strongest tendency to use dispositional reasonings when explaining their best friend’s choice, followed by Latinx participants ($M = 0.74, SD = 0.44$). East Asians ($M = 0.58, SD = 0.49$) had the weakest tendency to adopt a dispositional reasoning style. Further LSD post hoc test revealed that East Asians scored significantly lower than European Americans ($p < .01, 95\% CI [0.09, 0.29]$) and Latinx participants ($p = .001, 95\% CI [0.06, 0.25]$) in the dispositional reasoning. No significant difference was found between European Americans and Latinx individuals.

Further, for the external attribution score, the three cultural groups differed significantly, $F(2, 591) = 6.44, p = .002, \eta^2 = 0.021$. East Asians ($M = 0.51, SD = 0.5$) scored the highest in external attribution score, followed by Latinx participants ($M = 0.46, SD = 0.5$) and European Americans ($M = 0.33, SD = 0.47$). The LSD post hoc test showed that European Americans scored significantly lower than Latinx participants ($p = .005, 95\% CI [-0.22, -0.04]$) and East Asians ($p = .001, 95\% CI [-0.28, -0.07]$) in their external attribution score. Latinx and East Asian participants did not differ significantly from each other. See Table 1 for a summary of the results.
Table 1
Why Did Your Best Friend Choose Their Major? – Dispositional and External Attribution Scores

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<th>European American</th>
<th>Latinx</th>
<th>East Asian</th>
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<th>η²</th>
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<tbody>
<tr>
<td>Dispositional Attribution</td>
<td>0.77 (0.42)</td>
<td>0.74 (0.44)</td>
<td>0.58 (0.49)</td>
<td>7.83**</td>
<td>0.026</td>
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<tr>
<td>External Attribution</td>
<td>0.33 (0.47)</td>
<td>0.46 (0.5)</td>
<td>0.51 (0.5)</td>
<td>6.44**</td>
<td>0.021</td>
</tr>
</tbody>
</table>

*Note.* Participants responded to the question “Why did your best friend choose their major?” in an open-ended format. The attribution score is either 0 or 1.

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

Figure 1
Why Did Your Best Friend Choose Their Major?

Attention to Social Context in Real-Life Scenarios

The second task examined the attention to the social context in real-life scenarios across cultures. Participants were instructed to complete an attribution task based on a video stimulus. A one-way ANOVA was performed to test the differences across cultures to measure appropriateness regarding the main character’s irritable behavior. The results revealed a statistically significant difference between the three cultures, $F(2, 598) = 5.05, p = .007, \eta^2 = 0.017$. See Figure 2A for the summary of the appropriateness scores. Further LSD post hoc test revealed that East Asians ($M = 4.49, SD = 1.38$) had significantly stronger tendency to rate the red panda’s irritable behavior as appropriate as compared to European Americans ($M = 3.96, SD = 1.67$), $p = 0.002, 95\% \text{ CI } [-0.87, -0.19]$. A significantly stronger tendency to rate the red panda’s behavior as appropriate was also found for Latinx participants ($M = 4.28, SD = 1.6$) compared to European Americans, $p = 0.03, 95\% \text{ CI } [-0.61, -0.03]$. There was no significant difference in the ratings between East Asians and Latinx. Table 2 summarized the results of this attribution task.

Next, to examine whether the participants considered the social constraint when making internal attributions, the ratings of the red panda’s violence and gentleness were analyzed in a 3 by 2 repeated measures ANOVA, with one between-subjects variable (cultural group: European Americans, East Asians, the Latinx) and one within-subjects variable (personality: violence, gentle). The interaction did not reach significance, $F(2, 589) = 0.6, p = .55, \eta^2 = 0.002$. The pertinent scores were plotted in Figure 2B. However, we found significant main effects for personality across three cultures, such that participants rated the red panda as more gentle than
violent: European Americans (violence: $M = 3.38, SD = 1.57$; gentleness: $M = 4.54, SD = 1.48$): $t(211) = -6.36, p < .01, d = -0.44$; East Asians (violence: $M = 3.36, SD = 1.55$; gentleness: $M = 4.64, SD = 1.34$): $t(131) = -5.73, p < .01, d = -0.5$; and the Latinx (violence: $M = 3.61, SD = 1.57$; gentleness: $M = 4.59, SD = 1.54$): $t(247) = -5.78, p < .01, d = -0.37$. Moreover, no statistically significant difference was found for the violence ratings across cultures, $F(2, 594) = 1.64, p = .2, \eta^2 = 0.005$; although the Latinx ($M = 3.61, SD = 1.57$) rated the red panda as more violent compared to European Americans ($M = 3.38, SD = 1.57$) and East Asians ($M = 3.36, SD = 1.55$). Similarly, no statistically significant difference was found across cultures for the ratings of gentleness, $F(2, 592) = 0.2, p = .82, \eta^2 = 0.001$. East Asian participants ($M = 4.64, SD = 1.34$) rated the red panda as most gentle, followed by the Latinx ($M = 4.59, SD = 1.54$) and European Americans ($M = 4.54, SD = 1.48$). See Table 2 for the summary of these results.

Table 2
The Results of the Real-Life Scenarios Attribution Task

<table>
<thead>
<tr>
<th></th>
<th>European American</th>
<th></th>
<th>Latinx</th>
<th></th>
<th>East Asian</th>
<th></th>
<th>F</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriateness</td>
<td>3.96</td>
<td>1.67</td>
<td>4.28</td>
<td>1.6</td>
<td>4.49</td>
<td>1.38</td>
<td>5.05**</td>
<td>0.017</td>
</tr>
<tr>
<td>Perceived Violence</td>
<td>3.38</td>
<td>1.57</td>
<td>3.61</td>
<td>1.57</td>
<td>3.36</td>
<td>1.55</td>
<td>1.64</td>
<td>0.005</td>
</tr>
<tr>
<td>Perceived Gentleness</td>
<td>4.54</td>
<td>1.48</td>
<td>4.59</td>
<td>1.54</td>
<td>4.64</td>
<td>1.34</td>
<td>0.2</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Note. Participants were asked to infer the appropriateness of the character’s irritable behavior and to attribute the character’s personality on a 7-point Likert scale. Higher scores indicated perceiving the character’s irritable behavior as more appropriate and higher violence/gentleness ratings of the character. *$p < .05$. **$p < .01$. 

Figure 2
Real-Life Scenarios Attribution Task
Discussion

We constantly attempt to explain other people's behaviors in our everyday lives. In some situations, others' behaviors are prominent; therefore, people tend to make dispositional attributions. For instance, when Serena Williams had an intensive argument with the chair umpire after being cited for three code violations during the 2018 U.S. Open women's final, British media attributed her argument with the chair umpire as a result of her furious temper. However, other evident contextual constraints could also explain her behavior, as attested by the news in East Asian media. The news described that Serena is targeted by the chair umpire because she is a woman of color. News agency from different cultures focused on different type of information when explaining Serena’s behavior, showing that people’s attention to social context differ as a function of culture. In this investigation, therefore, we were particularly interested in understanding how culture informs people’s consideration of context when making attributions and, more specifically, how Latinx and East Asians differ in how they make attributions as compared to European Americans.

Our findings demonstrated that East Asians were more attentive to the contextual information than European Americans. Furthermore, in general, Latinx’s focus on attention to context was comparable to the East Asians; however, the findings were not consistent across tasks (see Figure 3 for a graphic description of the results).

Attention to Social Context: The Case of East Asians and European Americans

Our results demonstrate that East Asians and European Americans differ significantly in their attention to context in the two tasks used in this study. For the first task, we found that East Asians made more external attributions and less internal attributions than European Americans when explaining why their best friend chose their major. Interestingly, East Asians did make internal attributions, and European Americans did make external attributions, however, for East Asians the proportion of internal attributions was like their external attributions, but for European Americans the proportion of internal attributions was significantly higher than external attributions (see Figure 1). Using a methodology that has not been tested before cross-culturally, the current findings reveal that attribution tendency and attention to context differ as a function of culture. While previous studies using similar approach show that people have the tendency to make external attributions (e.g., Nisbett et al., 1973), we found further support for the idea that analytic thinking is associated with the tendency to make dispositional attributions and ignore the context. In contrast, holistic thinking is associated with the tendency to make external attributions and pay more attention to context (Varnum et al., 2010; Norenzayan & Nisbett, 2000).

For the second attribution task, we designed a scenario that mirror Serena Williams’ incident to explore the attention to social context in real-life situations. Given that previous research has shown that individuals from East Asian cultures are less likely to make the fundamental attribution error (e.g., Choi & Nisbett, 1998; Masuda & Kitayama, 2004; Miyamoto & Kitayama, 2002), in this study, we argue that East Asians would be more likely to reason that Serena Williams’ behavior was a response to broader environmental factors, and therefore consider her behavior appropriate. In order to mirror this social situation, we used a video stimulus that portrayed an animated red panda office worker who experiences a situational constraint (i.e., the panda is constantly bullied by the office director). At the end of the video, the panda avenges the director aggressively and brutally. We then asked participants to indicate whether they considered the panda’s behavior appropriate. East Asians were likely to indicate that the panda’s behavior was more appropriate than European Americans (see Figure 2A). We can then speculate that East
Asians weighted the influences of situational factors (e.g., work stress, the demanding director) more than European Americans when making attributions.

We further explored the degree to which the social constraint relates to how the participants make internal attributions. We speculated that if participants focus on the social context, they should view the office worker as more gentle than violent, regardless of the irritable behavior at the end of the video. And vice versa, if participants ignore the social context, they should rate the office worker as more violent than gentle. We further speculated that East Asians would be more likely to rate the panda as gentle than violent compared to European Americans. Although East Asians were more likely to see the panda as gentle compared to European Americans, the means were not significantly different. Overall, both cultural groups perceived the panda as more gentle than violent (see Figure 2B). The current findings demonstrate the practicality of using scenarios that mimic real-life events in cross-cultural investigations. Future studies may benefit from using similar approach in different cultural contexts.

Attention to Social Context: The Case of Latinx Cultures

In this study, we aimed to complement the scarce and inconsistent literature on how Latinx make attributions. Although Latinx have been defined as collectivistic, like the East Asians (Hofstede, 1980), the literature has not found consistent support for the idea that Latinx’s collectivism is related to holistic thinking (de Oliveira & Nisbett, 2017; Lechuga et al., 2011). In this investigation, we find similar results to those reported by de Oliveira and Nisbett (2017), where in general, Latinx paid more attention to context, just like the East Asians, but this was not consistently found across measures (see Figure 3 for a graphic summary of the results).

For Task 1, Latinx were more likely to make internal attributions when explaining why their friend chose their major than East Asians, just like the European Americans. Further, Latinx made more external attributions than European Americans, just like the East Asians (see Figure 1). In addition, Latinx made significantly more internal attributions than external attributions, just like the European Americans (see Figure 1). For Task 2, Latinx considered the panda’s behavior significantly more appropriate than the European Americans, just like the East Asians (see Figure 2A). Regarding attribution on dispositions, the Latinx did not differ from the other groups in terms of the assessment of the level of gentleness and violence, and just like the other two groups, Latinx considered the panda more gentle than violent (see Figure 2B).

These findings suggest that at least for external attributions, and attention to the social constraints experienced by the panda, East Asians and Latinx paid equal attention to context. In general, this supports the argument that collectivism is associated with holistic thinking, which in turn influences the tendency to see the context (de Oliveira & Nisbett, 2017; Masuda et al., 2008; Varnum et al., 2010). It is important to highlight that this finding is particularly important because it demonstrates that even if East Asians and Latinx are living in a country that emphasizes individualism, they can activate their view of the self as part of a whole (Oyserman et al., 2002) and pay attention to context when making attributions.

However, the fact that the differences were not consistent across tasks, demonstrates that other cultural frameworks or factors may explain the findings, as was suggested by de Oliveira and Nisbett (2017). For example, Latinx and East Asians do not share philosophical traditions, which may serve as a booster for holistic thinking for East Asians, but not for Latinx. Furthermore, the Latinx and East Asian samples are not equal in terms of the number of participants who were born in the U.S. Specifically, a higher proportion of East Asians indicated that they were born outside
the U.S. In contrast, a higher percentage of Latinx indicated that they were born in the U.S. Which one can argue that Latinx are more individualistic than East Asians since they have spent more time living in an individualistic culture. However, although the Latinx may be more individualistic, they still demonstrated a tendency for holistic thinking in two of the tasks. This may be because Latinx cultural values such as familism may provide collectivistic teachings on a regular basis and that in turn may influence holistic reasoning. Future studies could include variables to understand further the path that leads collectivistic cultures from different cultural backgrounds to focus on the social context (de Oliveira & Nisbett, 2017).

**Figure 3**

*Graphic Summary of The Results*

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Results</th>
<th>Cultural Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Behavior Explanation –</td>
<td>Dispositional Reasons</td>
<td></td>
</tr>
<tr>
<td>Dispositional Attribution</td>
<td>East Asian</td>
<td>V</td>
</tr>
<tr>
<td></td>
<td>Latinx</td>
<td></td>
</tr>
<tr>
<td></td>
<td>European American</td>
<td></td>
</tr>
<tr>
<td>Social Behavior Explanation – External</td>
<td>East Asian</td>
<td>V</td>
</tr>
<tr>
<td>Attribution</td>
<td>Latinx</td>
<td></td>
</tr>
<tr>
<td></td>
<td>European American</td>
<td></td>
</tr>
<tr>
<td>Real-Life Scenarios – Situational</td>
<td>Consider Situations</td>
<td>V</td>
</tr>
<tr>
<td>Consideration</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Latinx</td>
<td></td>
</tr>
<tr>
<td></td>
<td>European American</td>
<td></td>
</tr>
<tr>
<td>Real-Life Scenarios – Perceived Violence</td>
<td>East Asian</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>European American</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Latinx</td>
<td></td>
</tr>
<tr>
<td>Real-Life Scenarios – Perceived</td>
<td>Perceived Gentleness</td>
<td>X</td>
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<td>Gentleness</td>
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<td></td>
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<tr>
<td></td>
<td>Latinx</td>
<td></td>
</tr>
<tr>
<td></td>
<td>European American</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The red line represents a significant difference between cultures. In the cultural differences column, “V” indicates a significant cultural difference and “X” indicates no significant cultural difference.

**Contributions and Limitations**

Our research provides evidence on how culture influences attention to social context above and beyond past studies. This study not only relies on one methodology but adopts two methodologies that have not been tested across cultures. Through the lens of culture, this current work suggests that European American, East Asian, and Latinx individuals differ in the extent to which they pay attention to social context. To our knowledge, no study has compared the attention to social context of European American, East Asian, and Latinx individuals living in the United States. Previous research investigating cultural differences in attentional focuses has been tested primarily in East Asian (e.g., Chinese, Japanese, Korean) and American populations (e.g., Choi & Nisbett, 1998; Kitayama et al., 2003; Masuda & Kitayama, 2004; Miyamoto & Kitayama, 2002).
Accordingly, the current findings not only deepen our understanding on the attention to social context of Latinx populations, who are the fastest growing but understudied populations in the U.S. (SPSP, n.d.), but provide insights on practical implications. For example, education practitioners can apply our findings to design a curriculum incorporating person and context-focused activities. While students of European American cultural ancestries may be familiar with activities that emphasize targeted tasks, East Asian and Latinx students may feel comfortable in activities that include social context. Thus, integrating activities that require different attentional focuses will benefit students from different cultural backgrounds.

One limitation of this study is that it is unclear whether the cultural-driven attention to social context is the only factor that leads to the different attribution styles. As our goal was to mimic real-life scenarios, we did not control potential factors that could influence people’s attribution styles (e.g., whether participants watched the video stimulus before). Future studies could strengthen the present findings by incorporating a control video stimulus that only shows the irritable behavior of the office worker. In other words, the control video would not portray the social constraint being imposed on the office worker. If the attention to social context across cultures influences how people make attributions, then for the control video, participants from all cultures should rate the office worker’s brutal behavior as inappropriate.

A second limitation worth discussing is that although this investigation aimed to include a diverse sample of East Asians and Latinx to represent the populations of the U.S., our samples were not as diverse. Specifically, for the East Asians, most participants had a Chinese background, whereas, for Latinx, most participants had a Mexican or Puerto Rican background. This problem is typically found within the literature that is increasingly focusing on the comparison of three cultural groups in the U.S. For example, Senft and colleagues (2021) had a sample like the one reported in this study (i.e., 80% were Mexican and 70% were Chinese). Therefore, our studies do not generalize to more diverse populations. Future studies may benefit from making comparisons of more homogenous Latinx and East Asian samples so the findings can inform about more specific cultural characteristics of a Latinx culture or an East Asian culture (i.e., Mexicans may have cultural values that do not overlap with the Puerto Ricans’ cultural values).

**Future Directions**

The current study uses methodologies that have not been tested cross-culturally. Although interesting cultural differences have been found using a video stimulus to mimic real-life scenarios, it is a novel approach that is not based on observations in real-life situations. Future studies are necessary to test further the video prompt used in this study and observe if it has ecological validity. One approach would be to collect data from tweets to observe how people react to social situations such as the one that occurred to Serena Williams or the most recent incident when Will Smith slapped Chris Rock during the Oscar Academy Awards 2022 ceremony. Analyses of conversations online of people from different cultural backgrounds could further complement the findings from this study (e.g., Ikizer et al., 2019).

Another interesting factor that can be explored in future studies is the degree to which bicultural everyday life among Latinx and East Asians living in the U.S. influences attention to context when making attributions. For example, many biculturals in the U.S. move back and forth between their two cultural lives (e.g., a Mexican who learns Mexican values at home, but American values at school; Rodríguez-Arauz et al., 2017). For biculturals who are also bilinguals, using a specific language also suggest a cultural script in accordance with the associated culture (Ramírez-
Esparza et al., 2006). This frame switch in their everyday lives could make biculturals especially sensitive to changes in the context (Ikizer & Ramírez-Esparza, 2018). Future studies could address these questions by including individuals who identify with Latinx or East Asian communities and have different language and culture characteristics, and extend findings among other bicultural communities (e.g., Brannon et al., 2015).

The differences in the socioeconomic status may also influence people’s attention to social context (Reilly et al., 2021). Previous studies found that children from lower socioeconomic status backgrounds pay more attention to the surrounding information that is irrelevant, whereas children from higher socioeconomic status backgrounds tend to ignore the irrelevant information (D'Angiulli et al., 2008; Wray et al., 2017). In the current sample, European Americans have the highest socioeconomic status, followed by East Asians and Latinx. Accordingly, Latinx participants should be most attentive to the social context. However, our findings suggest that Latinx and East Asians pay attention to social context to a comparable degree. Whether socioeconomic status plays a significant role in people’s attention to context is thus unclear. Future studies could examine these effects by comparing individuals from different socioeconomic status backgrounds across cultures.

Concluding Remarks

The current research builds on existing work by testing the theory that culture influences attention to social context by including an understudied group, Latinx living in the U.S., and a measure that aims to capture real-life social scenarios. We found evidence that Latinx differ from European Americans in the degree to which they pay attention to social context when making external attributions. However, our evidence shows that Latinx and East Asians pay attention to social context to an equal degree; although other factors, such as acculturation and philosophical orientations, may play a role in the findings being inconsistent across tasks. Understanding how culture is expressed by individuals living in the U.S. from different backgrounds may have important implications in contexts that are becoming increasingly diverse to foment better communication and avoid biases and errors when making attributions.

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References


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