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Lu, Jiahui

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EXPOSURE TO OUTGROUP CULTURAL HOLIDAYS INCREASES INTERGROUP SOCIAL DISTANCE

JIAHUI LU

JIAHUI LU

School of Social Sciences

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Abstract

Cultural holidays are culturally themed, public celebrations that are held collectively and regularly in the society. In four studies, we explored the effect of exposure to holidays from out-group cultures on intergroup social distance and investigated the role of salience of one's nonmembership in the out-group (i.e., negational identity salience) as the cognitive mechanism. Study 1 showed that exposure to outgroup cultural holidays (i.e., Hari Raya Puasa for the Malay, Deepavali for the Indian) was associated with Singaporean Chinese's increase in linguistic distance in social media updates on Twitter. Study 2 experimentally manipulated exposure to Hari Raya Puasa and found that such exposure caused a decreased self-report willingness for casual interactions with Malay members for Singaporean Chinese. Study 3 showed that such a distancing effect was caused by the exposure to the out-group holiday but not the mere exposure to the out-group. Study 4 further showed that exposure to celebratory activities related to Hari Raya Puasa drove the distancing effects, especially for participants who highly identified with the Chinese culture. Furthermore, negational identity salience mediated such interaction effect on willingness for close interactions with Malay members. Overall, these results demonstrate that exposure to out-group cultural holidays increases social distance from the out-group members in the context of majority groups exposing to cultural holidays of minority groups. The current research extends the understanding of social impacts of cultural holidays on intergroup relations, presents cultural holidays as important contexts for studying intergroup relations in the field, and highlights the critical role of negational identity salience in increasing intergroup social distance.

Keywords: Cultural holidays; Intergroup social distance; Intergroup interactions;
Negational identity; Twitter

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Chapter I Introduction

Cultural holidays are important throughout the transition and implementation of different cultural policies to suppress or preserve identity and traditions of a cultural group. For example, during 1966-1998, Indonesia adopted a military-backed assimilation policy for managing the nation's Chinese minority. Under this policy, public celebration of Chinese New Year was prohibited. However, some Chinese Indonesian still celebrated the holiday secretly behind the walls of their homes, aiming to preserve and maintain Chinese traditions. In the new era of multiculturalism, Chinese Indonesian are able to enjoy the celebration of Chinese New Year publicly. Though most Chinese Indonesian have lost knowledge about the underlying meaning of the rituals and practices of Chinese New Year after the forced assimilation, they embraced the holiday as an acknowledgement and a new expression of their long suppressed Chinese identity.

However, cultural holidays are also double-edge swords to the society, implying a wider concern related to the policy of multiculturalism. On the one hand, it may likely promote intercultural learning; on the other hand, it may strengthen cultural differences, and/or induce symbolic and realistic threats to the society. For example, in Indonesia, Some Chinese Indonesian think that the expression of Chinese identity surrounding Chinese New Year is an opportunity for native Indonesian to learn about the Chinese culture. In fact, during the joyful fest, not only the ethnic Chinese, but also the native Indonesian learned to perform the dragon and lion dances and utilized the lucky color red (Yuliandani 2006). Nevertheless, debates surrounding Chinese New Year also merged. There was open criticism of the excessive celebration of Chinese New Year. Several concerns called for the Chinese community to celebrate Chinese New Year "with sensitivity and cultural

taste” (“A Chinese New Year for all to celebrate”, 2009) and to “be moderate and stop before reaching the limit” (Hoon, 2009). For example, some Indonesians perceived that they were overwhelmed with Chinese New Year and would turn off the TV when the Chinese fest TV shows were broadcast. They felt that the holiday only emphasized cultural differences and would cause segregation of the nation (Hoon, 2009). Some others thought in another way that the excessive celebration of Chinese New Year signified the arrogant of ethnic Chinese and the ambition to control the country (Budiman, 2005). In addition, economic and social inequality issues were also brought along with the holiday in that the celebration was considered lavish and thus being likely to hurt the feelings of poverty in the nation (Hoon, 2009).

In fact, the importance and concerns of cultural holidays are not limited only for the Chinese New Year in the Indonesia context, but for other cultural holidays worldwide. Multicultural countries, such as Canada and Singapore, have preserved cultural holidays of ethnic groups to help maintain their cultural heritage and identities (McClinchey, 2008). Cultural holidays are also being commercialized and spreading through the world in the process of globalization (Hoon, 2009; Sigley, 2007). Therefore, the concerns of cultural holidays are inevitably raised for other cultural holidays all over the world. For example, it has been reported that Jewish people, as minority group members in the US, who consider Christmas as a mainstream religious holiday may think that Christmas is everywhere and makes them feel excluded from the society (Markman, 2015).

Thus, it is important to understand the effect of cultural holidays on society. Among various effects of cultural holidays, what have been underexplored are their potential negative effects on intercultural relations. Therefore, in the current

research, we locate intercultural relations in the context of cultural holidays. Specifically, as inspired by the example, we aim to explore an important question that whether, and if yes, why exposure to out-group cultural holidays may lead to intergroup social distance in the society. Answering this question will provide theoretical contributions to the psychology of intercultural relations, and imply practical contributions to the event management and multicultural policies.

Defining cultural holidays

The study of cultural holidays is steadily increasing as sociologists and researchers in different disciplines recognize cultural holidays as culturally unique, important phenomena (Wilson, Arshed, Shaw, & Pret, 2017). Cultural holidays are contexts where large numbers of people showcase their culturally shared meanings and values, by utilizing a complex pattern of special social attitudes, behaviors, and cultural equipment at a particular time (Barnett, 1949; Derrett, 2003). Cultural holidays comprise a variety of cultural values, attitude, rituals, and practices; many of which include religious or at least spiritually symbolic meanings (Getz, 2010; Lau & Li, 2015). During cultural holidays, people go through a series of celebration rituals and practices that relate to nearly every aspect of life, including prayer, interpersonal communications and interactions, house decorations, music, clothing, and food. Through these celebration activities, cultural meanings and values from these cultural holidays are intentionally presented for reading by the outsiders (Quinn, 2000).

In the current research, we define cultural holidays as culturally themed, public celebrations that are held collectively and regularly (Getz, Anderson, & Carlsen, 2010; Wilson, et al, 2017). Though challenging, this definition helps

distinguish cultural holidays from other forms of cultural events and activities, and from non-cultural holidays. It also highlights important features of cultural holidays.

First, cultural holidays are the very first a form of celebrations (Lee, Arcodia, & Lee, 2012). To celebrate is to recognize and affirm one's uniqueness via a set of rituals and practices (Hilbers, 2006; Lau & Li, 2015). Thus, put another way, cultural holidays contain a set of rituals and practices that people will follow to affirm and express one's identity, sacred values, ideology, and continuity. For example, for Chinese New Year, ethnic Chinese around the world observe rituals such as having a reunion dinner and new-year visit, consuming traditional food, decorating their houses with red symbols, wearing red new clothes, and giving red packet money to children. They also observe the "don'ts" related to this holiday, such as no cleaning on Chinese New Year's Day, no unlucky words, and no odd amount of red pocket money. Even though many ethnic Chinese, especially those that are young, do not always understand the historical origin and meanings of these rituals and practices, they conform to these traditions because these are the practices that give meaning to their Chineseness (Hoon, 2009).

The core of celebration makes cultural holidays distinct from other cultural events that aims for other purposes, such as education, marketing, competition, and entertainment. Specifically, many multicultural events that aims to promote multiculturalism are not considered as cultural holidays. For example, the Racial Harmony Day in Singapore. Racial Harmony Day is an annual event held in schools that aims "to commemorate the communal riots of 1964 and teach students the importance of maintaining racial and religious harmony in Singapore's multicultural and multi-ethnic society", according to the National Library Broad Singapore (2014). As such, the main aim of Racial Harmony Day is for education, but not for

celebration. Though cultural activities such as dressing up in ethnic costumes, consuming ethnic food, and playing traditional games, are included in the Racial Harmony Day, they are neither practices for affirming the ethnic identity, nor rituals for celebrating the multicultural value in Singapore; rather, they are organized in a way to teach, promote, and declare racial harmony. But there are exceptions. For example, the Orange Ribbon Celebrations around the world. The Orange Ribbon Celebrations is an annual event that honors multicultural values. It forms a ritual that people wear orange ribbons – the color symbolizing racial harmony and intolerance towards racism – during the event (National Library Broad Singapore, 2014). This practice of wearing orange ribbons may signify an affirmation of one's identity as an anti-racist and the core value of racial harmony. In this sense, the Orange Ribbon Celebrations can be conceptualized as a cultural holiday. In sum, the core of celebrating one's cultural identity and values via a set of rituals and practices is the defining characteristic of cultural holidays.

Second, a cultural holiday should be related to the origin or sacred values of a culture. In this instance, a culture means a shared meaning system, consisting of representation such as norms, values, symbols, and behavioral scripts that are shared by individuals within a given society (Chiu & Hong, 2006). As the modernization and commercialization of cultural holidays, they are often at risk in disconnecting with their cultural origins, and become a secular holiday, a global holiday, or a national or international event. For example, in a qualitative research, Christmas has been argued as becoming a secular holiday in China rather than a religious holiday (Sigley, 2007). This research found that Christmas in China is disassociated, although not completely, from its Christian origin. It is unnecessary to be Christian, or even know of its religious connotations, to celebrate and enjoy Christmas in

China. In addition, Christmas in China is not celebrating the family values as originally; rather, it emphasizes the celebration of individual pleasure. Thus, “Christmas has shed its parochial and religious origins and become a truly global and secular festival” (Sigley, 2007, p.98), at least in China. Another example is from Dragon Boat Festival (McCartney & Osti, 2007; Sofield & Sivan, 2003). Dragon Boat Festival entails Taoist religious rituals to show a community’s dedication to its goddess of the seas and is origin from commemorate the death of a Chinese poet Qu Yuan. In a quantitative research, McCartney & Osti (2007) compared the perception of Dragon Boat races from participants in Melbourne and Macao. It was found that participants in Macao were able to recognize the races as related to cultural and community origins, as they perceived the races as being related to culturally authenticity and tradition, creating community solidarity, and reflecting the original history and local values. In contrast, participants in Melbourne perceived the races as merely an event to have fun, keep fit, and meet friends. Thus, it is argued that “dragon boat festivals lose part of their primary motive of celebrating culture to become an entertainment and sporting event” (McCartney & Osti, 2007, p.38). In this case, Dragon Boat race is not a cultural holiday at least at the eyes of Melbourne participants.

Third, an important feature of cultural holidays is that cultural origins and symbolism will be publicly celebrated by a group of cultural members via practices and rituals that utilize various cultural icons. For example, during Chinese New Year, a lot of cultural icons including Chinese Red, red packets, Chinese traditional clothes, dragon dance and lion dance, the red diamond-shaped Fu character, and red lanterns, are presented and consumed by a large group of ethnic Chinese. Specifically, the red color comes from a Chinese ancient myth that the color could

drive away a mythical beast called “Nian”. Rituals were formed around the myth that ethnic Chinese utilized the red color to drive away bad luck and welcome good luck, showcasing the Chinese origin and symbolism. In this sense, during cultural holidays, people are exposed to the context where a group of cultural members are utilizing cultural icons in symbolic ways as ritual norms.

Finally, as cultural holidays are held regularly, marked by special observance, they distinguish from other special cultural festivals or celebrations that are onetime or infrequently occurring events. A cultural holiday is repeated with a specific interval. Thus, cultural holidays are expected and legitimated by the public population. Expectations can be created about the way a particular cultural holiday will look and feel (Hilbers, 2006).

Social impacts of cultural holidays

Cultural holidays have positive social impacts to the society. At the group level, cultural holidays serve important cultural functions, such that holiday celebratory activities promote and maintain the culture system of which people are a part (Barnett, 1949). Cultural holidays are perceived to enhance cultural identity and cohesion, and promote community growth and development (Delamere, 2001; Lau & Li, 2015; Small, 2008; Small, Edwards, & Sheridan, 2005). At the individual level, cultural holidays are perceived to increase entertainment opportunities, shared family experiences, and community works, which benefit individuals’ well-being (Small, 2008; Small, et al., 2005; Tayler, McArdle, Richer, Brennan, & Weier, 2006). In addition, studies have suggested that cultural holidays can help improve intercultural learning and intergroup relationships, because they provide opportunities for others to interact with members of the celebration group and to

explore and educate themselves about the celebrated culture (Delbosc, 2008; Savinovic, Kim, & Long, 2012).

Besides positive impacts, research has also found that cultural holidays may have negative social impacts. For example, cultural holidays are perceived as disruptive to people's lifestyles and normal routines, as they may result in increased noise, traffic, crowds, and crime (Small, 2008; Small, et al., 2005; Van Winkle, Woosnam, & Mohammed, 2013; Wilson et al., 2017; Yolal, Gursoy, Uysal, Kim, & Karacaoğlu, 2016). In addition, as illustrated in the example at the beginning, cultural holidays may also have negative intergroup impacts (Hoon, 2009). However, to date, no known empirical study has investigated impacts of cultural holidays on intergroup relations and the underlying mechanisms in the field of social psychology.

Nevertheless, such investigations are important. First of all, given that cultural holidays have been shown to negatively impacts intergroup relations from sociological research, it is important for psychological research to support psychological assumptions made by other disciplines and extend the field by exploring underlying mechanisms. In addition, socially and culturally relevant research is urgently needed in the increasingly globalized world (Chiu & Hong, 2006; Liu & Hong, 2010). Researchers have used mega social events, such as the Olympic games and political hand-over, as natural contexts for testing and extending major intergroup and cultural theories (S. Cheng et al., 2011; Gelfand, Lyons, & Lun, 2011; Gries, Crowson, & Cai, 2011; Hong, et al., 2004; as a review, see Liu & Hong, 2010). As cultural holidays are special cultural phenomena, locating intercultural relations in such contexts may extend the psychology of intercultural relations by identifying special conditions that may benefit or harm

intercultural relations. Finally, in today's globalizing world, many communities become multicultural. For example, it is reported that non-European Americans would represent a majority of the US population by 2044 (Colby & Ortman, 2015). Ethnic minorities would grow from 13% of the population in 2001 to 25% by 2051 in the UK (Rees, Wohland, Norman & Boden, 2012). It becomes increasingly important to understand the impact of cultural holidays on groups that do not celebrate them but live in the same community. This can help improve event management and multicultural policies.

Exposure to cultural holidays and intergroup social distance

Intergroup social distance is an important measure of intergroup attitudes. It refers to one's unwillingness to accept or engage in social interactions with outgroup members (Williams, 1964). Intergroup social distance can be measured by asking individuals how they would treat outgroup members, ranging from developing kinship through marriage (the smallest distance) to excluding them from one's country (the largest distance) (Bogardus, 1925). Intergroup social distance can also be indicated through spatial or linguistic distance. For example, choosing a seat distant from outgroup members (e.g., Campbell, Kruskal, & Wallace, 1966; Macrae, Bodenhausen, Milne, & Jetten, 1994) or describing them abstractly in language (e.g., Liberman, Trope, & Stephan, 2007; Maass, Salvi, Arcuri, & Semin, 1989; Werkman, Wigboldus, & Semin, 1999; Semin, 2007) have been considered as indicators of social distance from the outgroup.

Cultural psychologists consider cultural holidays as cultural icons, and show that simultaneous exposure to icons (e.g., pictures of cultural holidays) of both the in-group and the out-group culture enhances intergroup distancing. Generally, cultural psychologists do not study holidays as special cultural phenomena; rather,

they use holidays as one of cultural icons, and often accompany them with other cultural icons to synthesize the representation of a culture. According to the dual culture activation theory of globalization (Chiu & Cheng, 2007; Chiu, Mallorie, Keh, & Law, 2009), presenting cultural icons of both the in-group and an out-group culture side-by-side will draw perceivers' attention to the defining characteristics that distinguish the two cultures and thus enhance the perceived distance of the two cultures. For example, Cheng, Leung, and Wu (2011) used a picture of roasted turkey on Thanksgiving Day to represent American culture and a picture of hot-pot from the Chinese New Year's Eve to represent Chinese culture. They found that when Singaporean Chinese were exposed to one Chinese picture (e.g., the picture of hot-pot for Chinese New Year) and one American picture (e.g., the picture of Thanksgiving Day) side-by-side, they felt less positive, compared with when only the American picture or the Chinese picture were shown. Arguably, the above occurred because simultaneous exposure to two cultures made salient the contrast between two cultures, which elicited unpleasant emotional states. Studies using different icons for cultural exposure (e.g., language, book covers) further supports that simultaneous exposure to two cultures increases perceived distance between the in-group and out-group and willingness to maintain cultural boundaries (e.g., Chiu et al., 2009; Morris, Mok, & Mor, 2011; Torelli, Chiu, Tam, Au, & Keh, 2011). The above studies suggest that, compared with the mixed presentation of both the in-group and an out-group, the single presentation of an out-group is less likely to draw perceivers' attention to the defining out-group characteristics that are distinguished from those of the in-group culture (C. Cheng et al, 2011; Torelli et al., 2011). Thus, in the case of cultural holidays, dual culture activation theory of globalization would

predict that exposure to cultural holidays from an out-group culture should not be sufficient to enhance intergroup social distance.

However, we contend that exposure to cultural holidays differ from exposure to other cultural icons. Previous studies mainly primed participants with pictures of cultural icons that are isolated with their utilization context. For example, a picture of Chinese dragon is often used as one of the presentations of Chinese culture. In this case, the Chinese dragon was isolated with its utilization context, and may serve to remind knowledge network of the Chinese culture. By contrast, the prime of Chinese New Year may induce or remind experiences where a group of Chinese members are performing dances of Chinese dragon. That is, exposure to cultural holidays may often implies exposure to a group of cultural members utilizing cultural icons. In addition, exposure to cultural holidays may also imply exposure to the context where a group of cultural members are performing cultural rituals, such as dos and don'ts. According to the research of group entitativity (Abelson, Dasgupta, Park, & Banaji, 1998; Campbell, 1958; Haslam, Rothschild, & Ernst, 2000), the fact that a large number of people from the same group are performing cultural icons and rituals will lead to the perception of the cultural group as a coherent, unified, and meaningful entity. This is because synchronized actions, the mass display and utilization of cultural symbols, and mass participation in events are cues that signify a group with high entitativity (Abelson et al., 1998). Thus, exposure to out-group cultural holidays, a context where out-group members are performing a variety of cultural icons and rituals, will cognitively make salient a homogeneous representation of the out-group.

Accordingly, extending previous research, we propose that exposure to cultural holidays from an out-group culture would evoke intergroup social distance.

Theories on social categorization (Simon, 1993; Tajfel, 1982; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) posit that one direct consequence of a salient out-group is that people will automatically distance from the out-group. Consistent with the prediction, a great deal of research has shown that people would cognitively and behaviorally distance from the salient out-group. For example, after presented ethnic and gender information of different target children, schoolchildren reported less willingness to work with the targets that were of the opposite sex and different ethnicities than those of the same sex and ethnicity (Brewer, Ho, Lee, & Miller, 1987). Recent studies also demonstrated automatic avoidance responses toward out-groups (Bastian, Loughnan, Koval, 2011; Paladino & Castelli, 2008; Wyer, 2010). In Paladino and Castelli (2008), by using a novel keyboard, participants finished a categorization task on a computer to indicate whether the stimulus (e.g., names, faces) belongs to the in-group or the out-group. The keyboard allowed participants to move their arm toward (approaching movement) or away from (avoidance movement) the stimuli. The reaction time for categorization was the dependent measure. Results showed that participants performed faster avoidance-like movements when the stimuli were categorized as out-group members than when the stimuli were categorized as in-group members. The results were consistent across different intergroup contexts, such as ethnicity, nation, age, political party, and minimal group.

What makes the current proposal different from previous social categorization research is that we offer a novel perspective to situate intercultural relations at a broader community level where out-group members are celebrating their cultural holidays. On the one hand, the out-group holiday context may accentuate intergroup distancing responses because of the heightened group entitativity. The line of

research suggests that outgroup entitativity would enhance intergroup social distance (Abelson, Dasgupta, Park, & Banaji, 1998; Campbell, 1958; Haslam, Rothschild, & Ernst, 2000), because intergroup differences become obvious and difficult to resolve when the outgroup is perceived as one entity sharing distinct and fundamental characteristics (Miller & Prentice, 1999; Prentice & Miller, 2006; Yzerbyt, Corneille, & Estrada, 2001). For example, a correlational study found that perceived out-group entitativity was positively related to fear-related xenophobia towards immigrants and negative evaluations of encounters with immigrants in recent past (Ommundsen, Yakushko, Van der Veer, & Ulleberg, 2013). Experimental studies found that out-group entitativity enhanced intergroup linguistic distance (Rubini, Moscatelli, & Palmonari, 2007) and predicted faster avoidance motor-responses to the outgroup (Bastian et al., 2011). Thus, during cultural holidays, the perception of high entitativity of the outgroup that celebrates the holiday could likely enhance distancing towards the outgroup.

On the other hand, the out-group holiday context may by contrast reduce intergroup distancing responses. Research has suggested that cultural holidays will likely promote intergroup interactions (Delbosc, 2008; Savinovic et al., 2012). According to the contact theory, more interactions with members of the outgroup increases positive attitudes toward the outgroup (Allport, 1954; Dovidio, Gartner, & Kawakami, 2003; Pettigrew, 1998), because personal contact reduces anxiety about intergroup interactions and develops empathy towards the outgroup (Pettigrew & Tropp, 2008). For example, personal intergroup contact predicted reduced social distance to the out-group (Ata et al., 2009). Participants who viewed interracial friendship interactions had less negative expectations about interracial interactions, and made more friends from other races (Mallett & Wilson, 2010). Young

participants who imagined a positive interaction with an elderly person subsequently expressed more positive attitudes than participants who simply thinking about an elderly person (Turner, Crisp, & Lambert, 2007). Studies supporting the contact theory all involve interactions, mostly positive, with outgroup members, either actual, observed, or imagined. These positive intergroup interactions are the keys to the development of positive attitudes because they help one familiarize and connect with the outgroup (Dovidio, Gaertner, & Kafati, 2000; Pettigrew, Christ, Wagner, & Stellmacher, 2007). Therefore, it is possible that individuals may develop more positive attitudes towards the outgroup during outgroup holidays when participating in celebrative activities and interact with outgroup members. However, we hypothesized that simple exposure to the celebration of outgroup culture holidays without positive intergroup interaction would not result in positive attitudes but social distancing towards the outgroup.

The mediating process of exposure to out-group holidays: negational identity salience

According to theories on social categorization, out-group salience will motivate people to contrast with the out-group, by categorizing oneself as an in-group member (Tajfel, 1982; Turner et al., 1987; Wilder & Shapiro, 1984), or directly from the self (Leonardelli & Toh, 2015; Simon, 1993). That is, in the context of out-group salient, nonmembership in the out-group (i.e., not them) should be a salient aspect of one's self-definition. In addition, as discussed, cultural holidays highlight internal coherence of a culture; this may increase the perception of high out-group entitativity, which in turn increase the salience of one's nonmembership. Therefore, exposure to out-group cultural holidays should activate one's nonmembership in the out-group.

One's nonmembership in the out-group is conceptualized as negational identity in the literature. Unlike affirmational identities that refer to individuals' identities that are defined by the in-groups — by what people are, negational identities are defined by out-groups — by what people are not. Research has shown that negational identities are important parts of self-identity and can occur independently of affirmational identities (Elsbach & Bhattacharya, 2001; Zhong, Phillips, Leonardelli, & Galinsky, 2008).

Negational identity can produce social distancing toward the out-group members. Negational identity focuses on contrast with the out-groups, making out-groups the central focus and psychologically primary (Zhong, Phillips et al., 2008). Consequently, dissimilarity or distance from one's out-groups takes priority over concerns about in-groups (Leonardelli & Toh, 2015; Mussweiler, 2003). For example, in a minimal group experiment, participants were randomly categorized as not being a member of Type M group based on an arbitrary task. They rated the out-group (i.e., Type M group) more negatively than the in-group (i.e., not Type M group; Zhong, Phillips, et al., 2008). Similarly, another experiment conducted with real cultural groups showed that Asian American participants who categorized themselves as being non-White voted more for the Black candidate Barack Obama, a contradictory choice to Asian Americans who indeed preferred the White candidate Hillary Clinton (Zhong, Galinsky, & Unzueta, 2008). This suggests that when categorizing oneself into negational identity, people are motivated to distance themselves from the out-group even at the expense of sacrificing their in-group interests.

One should take note that the current proposal focuses on the activation and salience of negational identity while prior research focused on negational

identification (Zhong, Galinsky, et al, 2008; Zhong, Phillips et al, 2008). Critically, negational identification implies that one see their nonmembership in the out-group as an important self-concept. Negational identification implies a chronic rejection to an out-group; such negation identification often involves a negative relational categorization (e.g., categorizations such as “rivals” or “enemies”; Elsbach & Bhattacharya, 2001). In contrast, negational identity salience does not have such implications. Identity salience refers to one’s awareness of a social categorization in defining and describing the self at a given time (Cota & Dion, 1986). Consequently, negational identity salience is an acute activation of nonmembership in the out-group. People do not necessarily consider the nonmembership of an out-group as an important self-concept when negational identity is made salient. Nevertheless, the salience of negational identity also emphasizes contrast with the out-groups. Dissimilarity or distance from one’s out-groups is also likely psychologically primary for negational identity salience; thus, it can also likely produce intergroup social distancing responses.

In addition, one noticeably missing from the literature is direct evidence of negational identity salience as a mediator of the relationship between out-group exposure and intergroup social distancing. However, demonstrating such evidence is theoretically important. If negational identity can be a mediator beyond affirmational identity, this challenges the assumption that negational identity required an in-group categorization. It can also support the theoretical argument that many situations which are usually considered intergroup situations may be conceptualized more adequately as quasi-intergroup situations where only the out-group is salient (Leonardelli & Toh, 2015; Simon, 1993).

Therefore, the current thesis seeks to show the mediating role of negational identity salience. In the case of cultural holidays, we predict that negational identity salience should mediate the effect of out-group holiday exposure on intergroup social distancing. In addition, we also predict that only negational, but not affirmational, identity salience would mediate the distancing effect of out-group holiday exposure. This is because, unlike negational identity salience, affirmational identity salience focuses on the in-group, making the in-group the psychological primary (Leonardelli & Toh, 2015). Assimilation to one's in-group takes priority over the concerns of out-groups (Gaertner, Mann, Murrell, & Dovidio, 1989; Zhong, Phillips, et al., 2008). This is consistent with the so-called positive-negative asymmetry phenomenon that in-group identity salience would largely lead to in-group favoritism rather than out-group derogation (Brewer, 1999; Mummendey, Otten, Berger, & Kessler, 2000).

Overview of the present research

Research context

To understand the potential negative impacts of out-group cultural holidays on intergroup relations, we examined how Singaporean Chinese would react to exposure of holidays from other ethnic cultures in Singapore. We hypothesize that when Singaporean Chinese encounter an out-group cultural holiday (e.g., Hari Raya Puasa of the Malay), they would show social distancing toward the out-group members (e.g., the Malay). Before we present the studies, we briefly describe the cultural context and cultural holidays in Singapore.

Singapore as a multicultural country. Singapore is a multicultural country. According to the Department of Statistics Singapore (2015), the Chinese are the majority ethnic group, constituting 74% of the population. They are religiously

diverse, with 42% of the population Buddhist, 21% Christian, and 23% religiously unaffiliated. Very few of them are Muslim (0.3%) or Hindu (0.01%). The Malays and the Indians are the numerically largest minority ethnic groups in Singapore, constituting 13% and 9% of the population, respectively. About 99% of the Singaporean Malay are Muslims, while 60% of the Singaporean Indians are Hindu, and 21% are Muslims.

Singapore emphasizes harmony and integration of people from different ethnic cultures. Young generations of Singaporeans are taught the virtues of respecting cultural diversity through the annual celebration of Racial Harmony Day. Citizens of diverse ethnicities are living around each other under the Ethnic Integration Policy for housing. A recent national survey conducted by Channel NewsAsia-Institute of Policy Studies (2016) reported that over two-thirds of citizens accept the idea of inviting people of other races to their home for a meal and to play with their children. Similarly, a national survey in 2013, reported that more than 90% of respondents indicated that they were comfortable with people of other races as neighbors and employees, and about 80% as close friends (Institute of Policy Studies-OnePeople.sg, 2013). Based on these statistics, Singapore is a relatively culturally harmonious society that encourages intergroup interactions.

Nevertheless, subtle discrimination concerning cultural boundaries and minorities' lifestyles is still a prevalent issue in Singapore. The 2016 national survey mentioned above reported that over 75% of Singaporean Chinese do not accept interracial marriage into their family. They considered closer in culture to Malaysian-born Chinese than to the Singaporean Malay or Indian (Mathews, Lim, Shanthini & Cheung, 2017). In addition, the lifestyles of ethnic minority groups are often the national spotlights in Singapore. For example, in 2012, a complaint about

“Indian sweaty smell and unwashed bodies” on social media attracted nationwide attention and concerns over the perceived prejudices against race (“Law Minister disturbed by Singaporean’s remarks on Indians,” 2012). In 2013, a governmental debate arose regarding whether Muslim women can wear a hijab in the workplace (“Allowing hijab problematic for some jobs,” 2013). In sum, though Singapore is a multicultural society that is relatively culturally harmonious, cultural issues concerning discrimination of minority cultural groups are still important and persisting in Singapore.

The current research focused on how the majority Singaporean Chinese would react to the minority out-group holidays in Singapore for two important reasons. First, previous studies have suggested that the majority is more likely to exclude themselves from the minority than the reverse. It has been shown that majority group members are motivated to preserve the normative standard they define and, thus, may reject minority groups who hold different cultural values and lifestyles (Craig & Richeson, 2014; Ginges & Cairns, 2000). In contrast, minority group members are found to endorse multiculturalism more strongly than the majority people (Verkuyten, 2005). They also dually identify with their native culture and the dominant culture (Gillespie, McBride, & Riddle, 2010; Tadmor, Tetlock, & Peng, 2009). Consequently, minority group members may have greater tolerance and respect for cultural diversity (Tadmor, Galinsky, & Maddux, 2012). The above is supported by the recent CAN-IPS survey on ethnic identity in Singapore (Mathews et al., 2017), which found that Singaporean Chinese were less likely than Singaporean Malay and Indian to both express interest and actually participate in the practices of other cultures such as celebrating another ethnic festival. Therefore, the majority may be more likely to react negatively to holidays of

minorities than the reverse. Second, as subtle discrimination against minority lifestyles persists in Singapore, it is important for the current study to focus on how the majority reacts to cultural holidays of minorities in Singapore.

Ethnic cultural holidays in Singapore. In this research, we focused on cultural holidays designated by the government as public holidays rather than other types of cultural festivals or holidays, because they are observed every year on a regular basis with large-scale celebration. Even without direct participation, people from different cultural groups will be exposed to the celebration. These public cultural holidays are likely to be more impactful than small-scale cultural festivals or activities that occur infrequently and may not affect outgroup members who do not celebrate them.

For Chinese groups, Chinese New Year is the public holiday for Chinese ethnicity in Singapore, as 92% of Singaporean Chinese regarded the celebration of Chinese New Year as important markers of Chinese identity (Institute of Policy Studies and Channel News-Asia, 2017). It marks the first day of the first month in the traditional Chinese calendar. During Chinese New Year, many people will go through a set of rituals. These often include family gathering for a reunion dinner and new-year visit. People will also decorate their communities and houses with red symbols (e.g., Fu character which means happiness or blessing) and wear new red clothes in hopes of good luck. Colorful processions, seasonal markets, and lion dances will be held throughout the country.

For the Malay group, there are two Muslim public holidays in Singapore. The first holiday, which is celebrated on a grand scale in Singapore, is Hari Raya Puasa. It marks the end of the holy fasting month. It is said that what Hari Raya Puasa means for the Muslims is what Chinese New Year means for the Chinese (“Hari

Raya Aidilfitri,” n.d.). Even though Hari Raya Puasa is a religious Muslim holiday celebrated around the world, it also represents the ethnic Malay in Singapore.

Ninety-six per cent of Singaporean Malay regarded the celebration of Hari Raya Puasa as important markers of Malay identity (Institute of Policy Studies and Channel News-Asia, 2017). During Hari Raya Puasa, Malay people will go to the mosques in the morning of the festival where special prayers are recited. Families will visit their parents and friends with new clothes — and often in the same and bright color — that are traditionally Muslim in style. Traditional decoration and glittering light will be seen throughout the streets. The second Malay holiday in Singapore is Hari Raya Haji. The holiday is also known as the Festival of Sacrifice. During Hari Raya Haji, Malay people pray, reflect, and share their wealth with the less fortunate. Unlike Hari Raya Puasa, the Haji holiday has little feasting or merrymaking, as it is a holiday about spiritual needs (“Hari Raya Haji,” n.d.).

For the Indian group, Deepavali is set as a public holiday for Indian ethnicity in Singapore (“Deepavali,” n.d.), as eighty-eight per cent of Singaporean Indian regarded the celebration of Deepavali as important markers of Indian identity (Institute of Policy Studies and Channel News-Asia, 2017). Deepavali is often wrongly perceived as the celebration of the New Year, as it presents hope by driving away the darkness of ignorance for a new beginning and is celebrated with joy. A few weeks before Deepavali, Indian people will clean or redecorate their houses. On the day of Deepavali, Indians will dress in new clothes and go to the temple to pray and then visit their relatives’ and friends’ home. The streets are colorful and lit up with festive decorations. There are also various events surrounding the holiday, including a street parade, exhibitions, and concerts.

Study overview

The present thesis represents the first attempt to reveal intergroup consequences of exposure to out-group holidays in multicultural societies. Based on the literature review, we predict the following: 1) Exposure to an out-group cultural holiday will lead to people's social distancing toward the out-group members; 2) Negational identity salience will mediate the effect of exposure to out-group cultural holidays on intergroup social distancing. We tested these predictions in four studies. Study 1 was an observational study based on social media data. Studies 2-4 further examined the distancing effect of exposure to out-group cultural holidays in experiments. In addition, Studies 3 and 4 examined the mediating role of negational identity salience.

Specifically, in Study 1, we conducted a large-scale observational study by revealing the psychological responses during cultural holidays for up to three years on Twitter. We focused on how twitter users of Singaporean Chinese expressed their linguistic distance during out-group cultural holidays, including Hari Raya Puasa and Deepavali. We predicted that users expressed more linguistic distance during out-group holidays than the daily baseline.

In Study 2, we experimentally tested how Singaporean Chinese participants would show willingness to interact with Malay members after they were exposed to Hari Raya Puasa, compared with after they were exposed to their in-group holiday (i.e., Chinese New Year) or a control holiday that does not contain an explicit in-group or out-group (i.e., Labor Day). We predicted that Singaporean Chinese participants would report decreased willingness to interact with Malay members when they were exposed to Hari Raya Puasa than when they were exposed to the other two holidays.

In Study 3, we further examined the distancing effect of exposure to out-group holidays by demonstrating that exposure to the out-group holiday rather than the mere out-group would produce intergroup distancing responses. We predicted that Singaporean Chinese participants would show decreased willingness to interact with Malay members when they were exposed to the Malay demonstrating celebratory activities on the day of Hari Raya Puasa than when they were exposed to the Malay doing daily activities on a usual day. In addition, we aimed to examine whether negational identity salience would mediate the effect of out-group holiday exposure on willingness to interact with Malay members.

In Study 4, we further separated an out-group holiday into two components, the component of time (i.e., the holiday) and the component of cultural celebration (i.e., celebratory activities). We aimed to test which component would account for people's social distancing responses. In addition, we also tested the mediating role of negational identity salience. We predicted that the celebratory activity of an out-group holiday would be the key factor for producing social distancing toward the out-group. We also predicted that negational identity salience would mediate such an effect.

Chapter II Study 1: Social Distance on Twitter during Out-group Cultural Holidays

Previous cultural and intergroup research traditionally relied on lab-based methods; thus, the question remains as to whether the experimental results can be generalized and applied to the real-world context. Some observational studies partly addressed this ecological validity issue by measuring intergroup experiences after out-group exposure surrounding some mega events, such as the Beijing Olympic Games (S. Cheng et al., 2011; Gries et al., 2011; Gries, Crowson, & Sandel, 2010). For example, a longitudinal survey conducted before and after the Beijing Olympic Game revealed that the increased media exposure to China during the Olympic Game increased American's negative attitudes toward the Chinese government and the Chinese people as well as American's preferences for a tougher U.S.-China policy (Gries et al., 2010). This study supported the theory that exposure to an out-group during intergroup events leads to negative attitudes toward the out-group in real-world contexts. Nevertheless, these studies used traditional self-reports accessing intergroup experiences before or after the events. This reporting method was limited because the reflective state in which the participants responded to these measures before or after the intergroup event may differ from their naturalistic, ongoing experiences during the event (Cohn, Mehl, & Pennebaker, 2004).

Modern Internet-based data offer the opportunity to address the above limitation by providing distortion-free and naturalistic data to reflect psychological responses to momentous events. Recent studies have adopted text-based online data to investigate the public mood surrounding socio-economic events. For example, Dodds and Danforth (2010) obtained 9 million blog sentences to measure the emotional state of populations over the course of 47 months. They found that the

happiness of blogs would sharply depart from their month's average on certain special days, such as Christmas Day, Valentine's Day, and September 11, 2006. This finding was consistent with the results from the study of Bollen, Mao, and Pepe (2011). These researchers analyzed about 10 million tweets from Twitter, one of the most popular social media platforms in the world that produced a text-based "social awareness stream" consisting of real time thoughts and feelings (Naaman, Boase, & Lai, 2010). They found that socio-economic events, such as U.S. Election Day and Thanksgiving Day, had a significant and immediate effect on public mood as reflected in tweets.

Studies have also employed text-based online data to track psychological responses to large-scale tragedy. For example, Cohn et al. (2004) tracked psychological reactions, such as emotional positivity, cognitive and social processes, and psychological distancing, surrounding September 11, 2001 by analyzing online personal journals. They found that blog writers expressed increased negative emotions and exhibited increased psychological distance in their blog writing right after the event. Doré, Ort, Braverman, and Ochsner (2015) used Twitter data to investigate emotional and cognitive processes after the shooting that occurred at Sandy Hook Elementary School, in Newtown, Connecticut, on December 14, 2012. They found that users expressed fewer sad words, but more anxious and causal thinking words with time and spatial distance from the tragedy.

In sum, studies have shown that online data from sources like Twitter microblogs can provide precious information that reveal psychological reactions to socio-economic events. Consequently, it is important for holiday research to go beyond lab-based methods, conducting observational studies that reveal people's naturalistic and ongoing responses to the holidays via Internet-based data.

Therefore, in Study 1, we conducted a large-scale observational study in Singapore by analyzing the data of tweet updates from Singaporean Chinese users on Twitter. Specifically, we analyzed the linguistic markers in tweets with a software for computerized text analysis, Linguistic Inquiry and Word Count (LIWC; Pennebaker & King, 1999), to reflect users' reactions during the out-group holidays. LIWC is a software tool that counts word frequencies in word categories associated with meaningful psychological variables. It has been widely used for estimating psychological processes from writing samples, such as emotion and personality (Chung & Pennebaker, 2012; Cohn et al., 2004; Doré et al., 2015; Pennebaker, Mehl, & Niederhoffer, 2003; Tausczik & Pennebaker, 2010).

Study 1 focuses on how Singaporean Chinese users react to two out-group cultural holidays in Singapore, Hari Raya Puasa for Malay culture and Deepavali for Indian culture. The two out-group cultural holidays are selected for at least two important reasons. First, both cultural holidays are public holidays and celebrated on a large scale in Singapore. This suggests that 1) each holiday is the most important holiday for its corresponding culture, that 2) a variety of cultural practices during holidays are promoted throughout the nation, and that 3) citizens will therefore notice that culture groups are celebrating holidays. This ensures that our participants perceive the holidays as cultural-related and were exposed to the out-group holidays. Second, as discussed, both Hari Raya Puasa and Deepavali are celebrated with joy and feasting and are similar to the celebration of Chinese New Year. This suggests that the two holidays promote similar mood valence from the celebrations, facilitating our ability to control for the effect of positive mood.

In this study, we operationalize intergroup social distance as linguistic distance towards out-group members. First, studies have suggested that linguistic

distance are associated with social distance (Liberman et al, 2007; Porter, Rheinschmidt-Same, & Richeson, 2016; Semin, 2007; Von Hippel, Sekaquaptewa, & Vargas, 1997). For example, people form higher-level construal of out-groups than in-groups, reflecting on the tendency that they describe out-groups more abstractly and negative than the in-groups (Werkman et al., 1999). Participants showed less (vs. more) willingness to interact with a sender who described participant's personal information in distanced (e.g., negative and abstract; vs. closed) language (Reistma-van Rooijen, Semin, & van Leeuwen, 2007). Similarly, participants believed that a communicator and a target shared a common identity (i.e., more socially close) if the communicator described the target in low distanced language (Porter et al., 2016). Second, out-group entitativity has been found to enhance linguistic distance towards the out-group. Specifically, in the minimal group paradigm, increased group entitativity caused increased use of negative abstract terms in outgroup descriptions (Rubini et al., 2007). Therefore, we predicted that out-group cultural holidays would be associated with increased linguistic distance.

H1: Singaporean Chinese users would express increased linguistic distance in tweets during out-group holidays (i.e., Hari Raya Puasa and Deepavali), compared with the daily baseline.

Method and measures

Data preparation. An initial sample of 845 Singaporean Chinese were identified from a pre-existing database of 20,000 Singaporean Twitter users, by detecting the use of English words that originate from Chinese dialects (See samples in Appendix I). One hundred accounts were randomly selected to check the detection accuracy of cultural group. Four users were wrongly categorized.

Accordingly, the accuracy of detection was about 96%. Thus, the results should be interpreted with acceptable noise.

Tweets written in English and set as public by the detected users from 2011 to 2013 (i.e., January 1, 2011 through November 12, 2013), were accessed and downloaded from Twitter API. As the study focuses on users' responses to the cultural holidays, users should be those who use Twitter as a platform for their personal expression or disclosure. Thus, 15 users were excluded because their total number of tweets was less than 25 during those three years (Golder & Mecz, 2011). In addition, four media accounts were also removed from further analysis. Tweets from the remaining users were preprocessed before further linguistic analysis. Information such as reposts written by others, timestamps, geo-locations, and embedded URLs were removed in order to obtain original texts written by the participants. Commonly used online slang and emoticons were also replaced by words.

We operationalized the holiday period as the first day of the holiday that is set as the public holiday. Research has shown that holidays have a significant and immediate effect on psychological reactions. For example, it has been found that the public mood changed sharply on the exact day of Valentine's Day, Christmas Day, and Thanksgiving Day (Bollen et al., 2011; Dodds & Danforth, 2009). In addition, though holiday celebrations start before the public holiday and continue for some time, only the day of the holiday is set as the public holiday, while days before and after are generally working days. Therefore, in order to control the effect of work, we only focused on the first day of the holiday.

Tweet corpuses for the dates of Hari Raya Puasa and Deepavali during the three years of the study were generated for each user. For comparison, we also

retrieved data for Chinese New Year representing an ingroup holiday, and Labor Day representing an control holiday that does not explicitly involve an ethnic ingroup or outgroup. Linguistic uses of the individuals on each holiday were obtained by doing LIWC analysis on the corpuses. Table 1 presents the final sample size, volume of tweets, and volume of words for each holiday.

Linguistic distance. Intergroup social distance is operationalized as linguistic distance in the study. To measure linguistic distance, we first adopted the linguistic distance index which was derived from previous factor analysis based on LIWC categories (Cohn et al., 2004; Nook, Schleider, & Somerville, 2017; Pasupathi, 2007; Pennebaker & King, 1999). Linguistic studies have showed that the factorial index of linguistic distance can reflect people's tendency to remove themselves from the event that is salient in mind (Cohn et al., 2004; Nook, Schleider, & Somerville, 2017; Pasupathi, 2007; Pennebaker & King, 1999). Based on the computation method of Cohn et al. (2004), we compute this measure by averaging the LIWC scores for articles (e.g., the, an), words of more than six letters, first-person singular pronouns (e.g., I, me; reversed), present-tense verbs (reversed), and discrepancy words (e.g., would, could; reversed). Specifically, decreased use of first-person singular pronouns (e.g., I, me), present tense verbs, and discrepancy words (e.g., would, could) indicates the tendency to avoid self-related language and be impersonal. Increased use of longer words and more articles (e.g., the, an) indicates the tendency to be abstract and rational (Cohn, et al., 2004; Nook et al., 2017). As linguistic distance in general also involved negative sentiment, we also included a word category that indicates negative emotions (e.g., hurt, ugly).

Mean-centered and aggregation. The linguistic uses were mean-centered on one's linguistic baseline (Cohn, et al., 2004; Golder & Macy, 2011). As we focused

on the public holiday, we adopted the weekend baseline of individuals to rule out the effect of work. We aimed to determine whether experiences of out-group holidays would be different from those of normal weekends.¹ We computed an individual weekend baseline by averaging the linguistic uses of the individual across all weekends in 2011 to 2013. Mean-centered values were obtained by taking the difference between the raw linguistic use and the baseline. After that, data of three years were averaged for each holiday.

Results

Table 2 presents the descriptive statistics of the LIWC categories. We tested whether the mean centered values of linguistic distancing for each out-group holiday were significantly different from zero to examine whether Singaporean Chinese expressed more linguistic distancing during the two out-group cultural holidays than weekend baseline.

As predicted, one sample t-tests showed that Singaporean Chinese expressed increased linguistic distance index during Hari Raya Puasa, $M = .25$, $SD = 3.2$, $p = .045$, with 5000 bootstrapping 95% CI = [.01, .48]; and during Deepavali, $M = .27$, $SD = 2.94$, $p = .018$, with 5000 bootstrapping 95% CI = [.06, .49], compared with the weekend baseline. In contrast, they did not show such pattern during the Chinese New Year ($M = .10$, $SD = 2.77$, $p = .46$, with 5000 bootstrapping 95% CI = [-.16, .35]) and Labor Day ($M = -.26$, $SD = 2.73$, $p = .032$, with 5000 bootstrapping 95% CI = [-.49, -.01]). In addition, we found that Singaporean Chinese did not express more negative emotions during Hari Raya Puasa, Deepavali, and Labor Day ($p > .14$), while expressed significantly less negative emotions ($M = -.67$, $SD = 4.13$, $p = .008$, with 5000 bootstrapping 95% CI = [-1.04, -.26]) during Chinese New Year, compared with they did on weekends.

To understand what people were distancing from, we further examined the associates of the baseline-centered linguistic distance. First, previous studies have found that third plural pronouns (e.g., they, them) are important indicators of out-group awareness (Arguello et al., 2006; Pennebaker et al., 2003; Tausczik & Pennebaker, 2010). If linguistic distance was indeed towards the out-group, the increased linguistic distance should associate with more mentions about third person plural pronouns. Second, social words (e.g., party, share) are related to social interests and social engagement (Pennebaker et al., 2003; Tausczik & Pennebaker, 2010). Therefore, we predict that linguistic distance should associate with less social words as people may avoid the out-group social activities, if they indeed distance from the out-group. Finally, exclusion words (e.g., exclude, without) are associated with one's cognitive process of making distinction between what is in a category and what is not in a category (Tausczik & Pennebaker, 2010). Therefore, one's disposition of cognitive exclusion should associate with the expression of linguistic distance at out-group holidays, because such a disposition may facilitate the perception of a salient and distinct out-group.

Correlational analyses were conducted to test the above predictions. Results showed that the increased linguistic distance was not significantly associated with more mentions about third plural pronouns for both holidays (Hari Raya Puasa: $r = -.07, p = .10$; Deepavali: $r = -.03, p = .37$). In addition, as predicted, results showed that baseline-centered linguistic distance was associated with less baseline-centered social words (Hari Raya Puasa, $r = -.22, p < .001$; Deepavali, $r = -.12, p = .001$). Finally, for Deepavali, baseline-centered linguistic distance was positively associated with one's three-year baseline of exclusion expression ($r = .10, p = .01$).

However, this association was not significant for Hari Raya Puasa ($r = .00, p = .92$). Therefore, in general, Hypothesis 1 was partially supported.

Discussion

Study 1 provides preliminary evidence for the association between intergroup social distance and exposure to out-group holidays based on social media data. Results showed that Singaporean Chinese expressed more cognitive linguistic distance on Twitter on the days of Hari Raya Puasa and Deepavali, compared with normal weekends. In contrast, they did not show such pattern during Chinese New Year and Labor Day. Analyses of linguistic associates partially supported that Singaporean Chinese indeed cognitively distanced themselves from the out-group holidays. However, we found no support that Singaporean Chinese would express more negative sentiments during outgroup cultural holidays. This suggests that the distancing from outgroup cultural holidays may more likely be cognitive-based rather than emotional-based.

Study 1 suffered from some limitations. First, though we examined the associates with the expression of linguistic distance, we did not find support that linguistic distance was associated with the use of third plural pronouns, which is a strong indicator of out-group awareness. However, this may be due to the social desirability issue. Singaporean are socially desired to not talk about cultural issue explicitly, especially at the context of cultural events. One who talk explicitly about an out-group would likely be considered as racist. Thus, we think that this result did not ruin our theory and is reasonable in the study context.

Second, Study 1 may suffer from sampling bias. Users who posted tweets during holidays might have had special psychological experiences, while those who did not post tweets might not have had such experiences. Third, the LIWC analysis

in Study 1 might be biased by the use of Singlish in our sample. Though English is one of Singapore's official languages, Singlish is commonly used and often in favor of standard English. This may be particularly the case because users like to use informal language on Twitter (Kouloumpis, Wilson, & Moore, 2011; Naaman et al., 2010). The grammar of Singlish is different from standard English. For example, Singlish may involve pronoun drop, a linguistic phenomenon where the subject pronoun of a sentence such as "I" or "You" is dropped. Also, it may unmark the past tense of verbs and involve the use of "de" instead of "the". Thus, the measure of linguistic distance in the current sample may be biased due to the use of Singlish.

We estimated if the above grammar issue may affect the linguistic results with a random sample of 200 tweets. First, among the random sample of 200 tweets, none of them involve the use of "de" instead of "the" based on a dictionary search program, suggesting that such use is not prevalent in tweets and thus is less likely to affect the frequency of articles. Second, we manually coded those 200 tweets and estimated the prevalence of pronoun drop and unmarking the past tense of verbs. We asked two Singaporean assistants to code whether the writing of a tweet involves pronouns drop and unmarking the past tense of verbs (1=Yes, 0=No). The interrater agreement was .80 for pronoun drop and .94 for unmarking past tense of verbs. The disagreement was resolved by the author. We found that only 4.5% of tweets was unmarked the past tense of verbs, suggesting that the bias in estimating frequency of the past tense is negligible. In addition, we found that 35.5% of tweets involve pronoun drop. This suggests that the issue of pronoun drop may substantially affect the frequency of pronouns, which in turn affect the estimate of less self-focus. Therefore, to further estimate the effect of pronoun drop on the linguistic results, we asked three Singapore assistants to provide rating on the extent that the content of a

tweet was self-focus. We correlated the rating of self-focus with the frequency of first person singular pronouns (i.e., I). We found that the correlation was significant, $r = .61$, $p < .001$. This suggests that the frequency of first person singular pronouns can accurately indicate whether users were focusing on oneself, though the pronoun drop was prevalent in the tweets. Nevertheless, future study should try to use more elaborated textual tools to rule out the potential effect of language grammar on the linguistic measures.

Overall, this study was the initial step toward exploring the distancing effects of exposure to out-group cultural holidays using naturalistic and unobtrusively text-based social media data. Despite its limitations, this study presents an important approach for studying intergroup relations during large-scale cultural events.

Chapter III Study 2: Out-group Holiday Exposure and Intergroup social distance

The objective of Study 2 was to validate the distancing effect of out-group holidays through an experiment. It aimed to examine the causal effect of out-group cultural holidays on social distancing toward out-group members. Specifically, we implemented an experiment where Singaporean Chinese participants imagined cultural symbols and practices of an out-group holiday (i.e., Hari Raya Puasa), an in-group holiday (i.e., Chinese New Year), or a control holiday that does not contain an explicit ethnic in-group or out-group (i.e., Labor Day).

The Bogardus Social Distance Scale (1925) is one of the most widely used method to measure intergroup social distance (Ata, Bastian, & Lusher, 2009; Esses & Dovidio, 2002; Yogeeswaran & Dasgupta, 2014). In this scale, respondents are asked to choose whether they accept an interaction with a group member from the most distant interaction “would exclude from my country” to the closest interaction “to close kinship by marriage”. The closer interactions respondents can accept, the less distant they are from a group member. Studies have suggested that there may be two distinct types of such intentions, namely willingness to seek contact and avoid contact with out-group members (Pettigrew & Tropp, 2006; Yogeeswaran & Dasgupta, 2014). For example, it was found that participants who expected an interaction with an out-group would report a decreased willingness to get to know and increased intention to avoid the out-group, but each was predicted by different factors (Shah, Brazy, & Higgins, 2004). Therefore, it is important for our study to explore whether exposure to out-group cultural holidays would have convergent effects on individuals’ desire to seek and avoid contact with the out-group members. Following Yogeeswaran and Dasgupta (2014), we measured willingness to seek

contact and avoid contact with the out-group members in terms of casual (e.g., being a casual friend) and close (e.g., being in an intimate relationship) intergroup contact. In general, we predicted that Singaporean Chinese participants who imagined Hari Raya Puasa would show less willingness to contact with Malay members than those who imagined Chinese New Year and Labor Day.

We also expected that Singaporean Chinese participants who imagined Chinese New Year would show no social distancing toward the Malay members. It has been suggested that in-groups are “psychological primary” in the condition of in-group exposure (Leonardelli & Toh, 2015). Assimilation to one’s in-group comes before the concerns of out-groups (Gaertner et al., 1989; Zhong, Phillips, et al., 2008). This is consistent with the so-called positive-negative asymmetry phenomenon that in-group identity salience would lead to in-group favoritism rather than out-group derogation (Brewer, 1999; Mummendey et al., 2000). Therefore, we predicted that participants who imagined Chinese New Year and Labor Day would show a similar level of willingness to engage in intergroup contact with the Malay members.

Hypothesis 2a: Participants who imagined Hari Raya Puasa would report less willingness to engage in intergroup contacts with Malay members than would those who imagined Chinese New Year or Labor Day.

Hypothesis 2b: Participants would report similar levels of willingness to engage in intergroup contacts with Malay members for those who imagined Chinese New Year or Labor Day.

Study 2

Method

Participants. One hundred and eighteen Singaporean Chinese students were recruited from the research participation pool in exchange for course credits at Nanyang Technological University. To ensure our data quality, we excluded four participants whose pattern of responses suggested that they did not pay attention to the rating task (e.g., answering the same to all questions) were dropped from the analysis. Thus, the final sample includes 114 participants (75 females and 39 males; $M_{age} = 20.7$, $SD = 1.63$; 28 Christian/Catholic, 23 Buddhist, 5 Taoist, 5 others, and 53 nonreligious).

Procedure and materials. Participants completed the survey online. They were informed that they would be participating in two unrelated research projects, with the first project investigating their perception of holidays, and the second investigating their attitudes toward other people. The holiday manipulation was introduced in the first project and intergroup interaction measures were administered as part of the second project.

After consenting to the study, participants were randomly assigned to one of the three holiday conditions: Chinese New Year, Hari Raya Puasa, or Labor Day. They were presented with a general description of the holiday and asked to take a few minutes to write about the most impressive way to celebrate the holiday in as detailed a manner as possible. They were given some guidelines, such as thinking about a holiday practice or symbol that impresses them most, what such a practice or symbol could be, and what it symbolizes. They read the instructions below:

Chinese New Year (vs. Hari Raya Puasa) is the most important Chinese (vs. Malay) festival (vs. Labor Day is an important holiday to honor Labor). Please write about what impresses you the most in the Chinese New Year (vs. Hari Raya Puasa vs.

Labor Day) as detailed as possible. For example, you can write about practices or symbols that impress you most, describe about what they are, and what they symbolize.

Then, participants were instructed to indicate their willingness to engage in intergroup interactions with Malay members. At the end of the experiment, participants provided additional demographic information such as age, gender, and religion. They were also asked to indicate whether they knew and explain what was manipulated in the study. After that, they were debriefed and thanked.

It is likely that Singaporean Chinese participants would spend more time on the writing task in the Chinese New Year condition than other conditions, because participants are likely more familiar with the Chinese New Year than other holidays. In order to ensure the priming qualities were equal across conditions, we tracked how much time participants spent on the priming procedure.

Willingness to engage in intergroup interactions with Malay members.

Behavioral intention for intergroup contacts with Malay members was assessed by adapting the scale used in Yogeeswaran and Dasgupta (2014). Participants indicated to what extent they would be willing to engage in intergroup interactions with Malay members on a scale of “1 - *not at all willing*” to “7 - *extremely willing*.” The previous study suggests a two-factor model of the scale, including willingness to engage in close vs. casual intergroup interactions (Yogeeswaran & Dasgupta, 2014).

As discussed earlier in the research context, Singaporeans are encouraged to interact, including being friends and co-workers, with people of other ethnicities, while inter-ethnic intimate relationships for Singaporean Chinese are still uncommon. Thus, it is likely that the factor structure of the scale for willingness to

engage in intergroup interactions with Malay members will be different from that of the previous study conducted in U.S. Therefore, we conducted a factor analysis on the scale. Principle component analysis with direct oblimin rotation suggested a two-factor model of the scale for willingness to engage in intergroup interactions (See Appendix II). The first factor indicates close intergroup interactions with Malay members including three items: “marry a Malay person,” “have an intimate relationship with a Malay person,” and “accept a Malay person as a family member through marriage.” The second factor indicates casual intergroup interactions with Malay members including the rest of items, such as “have a Malay person as a close friend,” “confide in a Malay person,” “accept a Malay person as a neighbor.”. Note that this factor structure was indeed different from that in Yogeeswaran and Dasgupta (2014) where the two items “have a Malay person as a close friend” and “confide in a Malay person” were categorized in the factor of close intergroup interaction. Therefore, we calculated the factor score for close ($\alpha = .85$; $M = 3.48$, $SD = 1.49$) vs. casual ($\alpha = .95$; $M = 6.28$, $SD = .86$) intergroup interactions based on the factor structure in the current study.

Results

The time that the participants in each of the three conditions spent on the priming task did not differ (one missing data; $F(2,111) = .03$, $p = .97$, $\eta_p^2 < .001$). This suggests that participants engaged equally well in different priming conditions. Finally, none of the participants were able to correctly indicate the true purpose of the study.

A one-way, between-group analysis of covariance (ANCOVA) tests with religion were conducted to assess the effects of holiday condition on willingness to engage in close vs. casual intergroup interactions. Age and gender were also

controlled as covariates because they were significantly correlated with willingness to engage in close intergroup interactions (For age, $r(112) = .21, p = .006$; for gender (Male = 1), $r(112) = -.33, p < .001$). The ANCOVA analysis revealed a significant main effect of holiday condition on willingness to engage in casual intergroup interaction, $F(2, 105) = 3.34, p = .038, \eta_p^2 = .06$. A planned contrast analysis showed that participants in the Hari Raya Puasa condition (Estimated Mean = 5.94, $SE = .17$) reported lower willingness to engage in casual intergroup interactions than did either participants in the Chinese New Year condition (Estimated Mean = 6.40, $SE = .17, p = .028$) or participants in the Labor Day condition (Estimated Mean = 6.37, $SE = .17, p = .028$). The levels of willingness to engage in casual intergroup interactions for the latter two conditions did not differ from each other ($p = .90$). In addition, the ANCOVA analysis revealed no significant main effect of holiday condition on willingness to engage in close intergroup interaction, $F(2, 105) = 1.70, p = .19, \eta_p^2 = .031$. Thus, H2a and H2b are supported for willingness to engage in casual intergroup interactions, but not for close intergroup interactions.

Discussion

Study 2 experimentally investigated the causal effect of exposure to out-group cultural holidays on intergroup social distance. The results supported our hypothesis by showing that people reported decreased behavioral intention of casual contact with the out-group members when they were exposed to the out-group holiday. Specifically, Singaporean Chinese participants who imagined the celebration of Hari Raya Puasa reported lower behavioral intentions of casual intergroup interactions with Malay members than those who imagined that of Chinese New Year or the Labor Day. However, the results did not support the hypothesis for behavioral intention of close intergroup interactions with the out-group members. Singaporean

Chinese participants in different holiday conditions reported similar level of willingness to engage in close interactions with Malay members, such as being in an intimate relationship with a Malay member.

The divergent results of willingness to engage in close vs. casual intergroup interactions may be consequences of the two following possibilities. The first possibility is that willingness for close intergroup interactions in the current study may be a stable attitude. Our factor analysis showed that only intergroup interactions related to inter-ethnic marriage were considered as close intergroup interactions in the current Singaporean sample. As discussed, Singaporean Chinese are unlikely to accept inter-ethnic relationships (Channel NewsAsia-Institute of Policy Studies, 2016), and thus avoidance of inter-ethnic marriage may be a core issue for maintaining cultural boundaries for Singaporean Chinese. Therefore, willingness with respect to inter-ethnic marriage may be a rather stable attitude that is less likely to be influenced by the holiday manipulation.

The second possibility is that exposure to an out-group holiday that draws attention to a contrasting cultural group may have simultaneous, yet divergent effects. On the one hand, exposure to a contrasting culture can open individuals' minds to novel experiences (Appiah, 2006) and enable them to alter their routine behavioral patterns (Leung, Maddux, Galinsky, & Chiu, 2008). Such increased open-mindedness to the out-groups may help reduce avoidance of the out-group and maintenance of group boundaries and, thus, increase acceptance of interracial marriage. On the other hand, as discussed, people perceive increased incompatibility between cultures (Chiu et al., 2009). Therefore, it is possible that the distancing effect of holiday manipulation on willingness for close intergroup interactions was canceled out.

Though Study 2 generally supported our hypothesis, it suffered a major limitation. The holiday manipulation in this study confounded the effect of exposure to an out-group holiday with that of exposure to a mere out-group. It is possible that thoughts of a mere Malay out-group would be sufficient to drive the current effect. Therefore, we addressed this limitation in Study 3. In addition, we also explored negational identity salience as a potential mediator in Study 3. As discussed in the literature review, we predicted that negational identity salience would mediate the effect of exposure to out-group holidays on intergroup distancing.

Chapter IV Study 3: Exposure to an Out-group Holiday vs. a Mere Out-group

The objective of Study 3 was twofold. First, it aimed to demonstrate that exposure to an out-group holiday, rather than a mere out-group, would be essential to producing social distancing the out-group members. Second, it aimed to test the prediction that negational identity salience would mediate the effect of out-group holiday exposure on intergroup social distancing responses. Specifically, we implemented an experiment where Singaporean Chinese participants imagined their encounters with a Malay family doing daily activities on a usual day or demonstrating celebratory activities on the day of Hari Raya Puasa. We predicted that participants who imagined their encounters with holiday celebrations of a Malay family on the day of Hari Raya Puasa would show less willingness to interact with Malay members than those who imagined their encounters with daily activities of a Malay family on a usual day. Further, we predicted that negational identity salience would mediate the effect of out-group holiday exposure on the willingness to interact with Malay members.

Hypothesis 3: Participants who imagined their encounters with holiday celebrations of a Malay family on the day of Hari Raya Puasa would show less willingness to interact with Malay members than those who imagined their encounters with daily activities of a Malay family on a usual day.

Hypothesis 4: Negational identity salience would mediate the effect of out-group holiday exposure on willingness to interact with Malay members.

Study 3

Method

Participants. Seventy-nine Singaporean Chinese students (47 females and 32 males; $M_{age} = 21.9$, $SD = 1.67$; 23 Christian/Catholic, 24 Buddhist, 2 Taoist, 3

others, and 27 nonreligious) were recruited from the research participation pool in exchange for course credit at Nanyang Technological University. Following the inclusion criteria in Study 2, all participants were included in the analysis.

Procedure. Participants were invited to the psychology lab and completed the experiment online. Participants were informed that they would be participating in a study titled “A self-description study,” so as to prevent them from identifying the real research purpose. Upon their consent, participants were briefed that they would first work on an imagination task and then a self-description task. Then, they were left alone to finish the experiment online.

The imagination task introduced the manipulation of holiday exposure. Participants were randomly assigned to one of the imagination conditions. In the holiday condition, participants were asked to imagine a scenario where they encountered celebration activities of Malay members on the day of Hari Raya Puasa. They read the following instruction:

Today is Hari Raya Puasa. You and your family go to an activity hall in the community center to spend your leisure time. In the hall, a Malay family wearing traditional clothes are eating their holiday food and celebrating.

In the daily condition, participants were asked to imagine a scenario in which they encounter daily activities of Malay members on a usual day. They read the following instruction:

Today is a usual day. You and your family go to an activity hall in the community center to spend your leisure time. In the hall, a Malay family wearing everyday clothes are eating and chatting.

Participants were asked to write about the details of the scenario in their imagination. This procedure was intended to engage them with the task. The amount

of time participants spent in writing their imagined scenarios was measured in order to ensure the priming qualities were equal across conditions. Immediately after the imagination, they were asked to indicate to what extent they would like to get into the community hall to spend their leisure time and how intensely they felt positive and negative emotions at that moment. After that, they were instructed to complete two self-description tasks that measured their identity salience. After that, participants were instructed to provide demographic information measures, such as age, gender, and religion. Finally, participants were fully debriefed and thanked.

Measurements.

Willingness to interact with the Malay members. The extent that participants would spend their leisure time in the activity hall with the Malay family served as an indicator of their willingness to interact with the Malay members in the immediate holiday context. Participants provided their rating on a 7-point scale, ranging from “1 - *definitely won't*” to 7 - *definitely will*.”

Affirmational and negational identity salience. In this study, we measured both affirmational and negational identity salience. As discussed, we expect that affirmational identity would not mediate the effect of out-group holiday exposure on distancing toward out-group members.

Affirmation identity salience was measured by the “Tell me about yourself” question and negation identity salience was measured by the “Tell me what you are not” question (McGuire, McGuire, Child, & Fujioka, 1978; Cota & Dion, 1986). The “Tell me about yourself” and “Tell me what you are not” probes were presented in the counterbalanced order. For each probe, participants were informed that there are no right or wrong answers and that they could respond using sentences, phrases, or single words, whichever they preferred. A “blind” coder coded the responses of

all participants on both questions to check whether ethnicity was mentioned. For affirmation identity salience, participants who clearly mentioned their membership of Chinese group (e.g., “I am a Chinese”) received a score of one whereas those who made no clear reference to one’s Chinese membership were scored zero. Similarly, for negational identity salience, participants who clearly mentioned their nonmembership of Malay group (e.g., “I am not a Malay”) received a score of one whereas those who made no clear reference to one’s Malay nonmembership were scored zero.

Emotional responses. We aimed to control for participants’ emotional reactions to the out-group when we were conducting mediation analysis for negational identity salience, as intergroup emotions have been proposed as alternative explanations for distancing reactions following out-group exposure (Mackie, Devos, & Smith, 2000; Smith, 1993). In order to assess emotional reactions toward the out-group (Yang, 2011), participants were asked to indicate how intensely they felt two positive emotions (i.e., happy, admiration; $\alpha = .49$)² and four negative emotions (i.e., hatred, anger, contempt, disgust; $\alpha = .86$). In addition, as intergroup anxiety is the important emotional response to the out-group (Plant & Devine, 2003), we also asked participants to indicate their feelings on six agitation-quiescence-related emotions (i.e., agitated, on edge, uneasy, tense, calm, relaxed; calm and relax were reverse coded; $\alpha = .83$; Higgins, Shah, & Friedman, 1997; Shah et al., 2004). Participants provided their rating based on their current feelings on a 7-point scale, ranging from “1 – *not at all*” to 7 – *very much*.”

Results

Descriptive statistics and bivariate correlations are presented in Table 3. The percentage of affirmational (11%) and negational (6%) identity salience was low.

Affirmational and negational identity salience was positively correlated, $r(77) = .56$, $p < .001$, suggesting that participants who mentioned their Chinese identity were also likely to negate the Malay identity. Importantly, positive emotions were positively related to willingness to stay in the community hall with the Malay, $r(77) = .38$, $p = .001$.

Task equivalence. A one-way ANOVA revealed that the time participants ($N=78$, one missing data) spent on their imagination task did not differ across conditions, $F(1, 76) = .18$, $p = .67$, $\eta_p^2 = .002$.

Effect of holiday manipulation.

Effect on willingness to interact with the Malay members. Willingness to stay in the hall with the Malay family was analyzed with a one-way ANOVA test, controlling for age, gender, and religion. Results revealed that participants reported a lower willingness to stay in the community hall with the Malay in the holiday condition (Estimated Mean = 3.48, $SE = .37$) than did those in the daily condition (Estimated Mean = 4.36, $SE = .45$), $F(1, 71) = 4.28$, $p = .042$, $\eta_p^2 = .057$. Thus, Hypothesis 3 was supported.

Effect on affirmational and negational identity salience. The holiday effects on affirmational and negational identity salience were analyzed with Chi square analyses. Results revealed that there were conditions having expected counts less than 5 and thus Fisher's Extra Test was used for p value adjustment. Holiday manipulation did not have a significant effect on affirmational identity salience (daily condition 13% vs. holiday condition 10%, Fisher's Extra Test $\chi^2(1, 78) = .098$, $p = 1.00$) or negational identity salience (daily condition 8% vs. holiday condition 5%, Fisher's Extra Test $\chi^2(1, 78) = .19$, $p = 1.00$). Thus, the condition for

a significant mediation was not fulfilled and Hypothesis 4 was not supported in this study.

Discussion

Study 3 aimed to demonstrate that participants' social distancing toward out-group members would be induced after their exposure to an out-group holiday rather than merely an out-group. The results supported the hypotheses by showing that Singaporean participants who imagined encounters with holiday celebrations of a Malay family on the day of Hari Raya Puasa would report lower willingness to stay with the Malay family in the immediate context than did those who imagined encounters with daily activities of a Malay family on a usual day. This supports the hypothesis that out-group holidays would lead to distancing responses toward the out-group.

Though the current study supported that distancing toward the out-group members were indeed induced by the exposure to out-group holidays rather than mere exposure to out-groups, it has three potential limitations. First, the measure of willingness to stay in hall with Malay members may suffer from construct validity problem. For example, rather than distancing from the out-group members, it is likely that participants might feel that it is not social appropriate to stay or disturb the celebration as they are not a part of celebrations. Past research suggested that positive affect can prime socially desirable self-reports (Devlin, Zaki, Ong, & Gruber, 2014; Bower, 1991). Thus, if not staying with the Malay were indeed social desirable, positive emotion should lead to a lower report of staying with the Malay. However, contradicting with the above prediction, the result showed that positive emotion was positively related to their willingness to stay with the Malay members. This is consistent with the priming effect of positive emotion on social desirability

to interact with the out-group members. It is also consistent with past results that positive affect can reduce intergroup bias (Bodenhausen, Mussweiler, Gabriel, & Moreno, 2001; Dovidio, Gaertner, Isen, & Lowrance, 1995; Lount, 2010). Thus, our result suggests that the measure is indeed more related to out-group avoidance.

Second, the current holiday manipulation intertwined the effects of time (i.e., whether the out-group encounter happens on a usual day or on the day of holiday) and out-group activity (i.e., whether the out-group encounter is about daily activity or celebratory activity). As per definition, cultural holidays are culturally themed, public celebrations that are held collectively and regularly. Thus, a cultural holiday should at least contain two important elements, one as culturally and collectively public celebration and the other as the time when the celebration occurs. Therefore, it is important for the follow-up study to explore which elements of out-group holidays drives the distancing effect.

Third, the current study observed only a low rate of both affirmational and negational identity salience. We found that, even after the manipulation of out-group exposure, the rate of identity salience was similar to that of the baseline reported in previous studies (e.g., McGuire et al., 1978). This is probably because the measurements asked the participants broad questions about themselves, rather than narrow questions specific to their social identities. In addition, it is also possible that encounters with Malay members for Singapore Chinese are too prevalent. Consequently, the current measures of identity salience were not sensitive enough to detect effects of experimental manipulations. Therefore, we speculate that the low rate of identity salience was distorting the test of holiday effect on identity salience and, thus, that of the mediation model. Study 4 addressed the later two limitations.

Chapter V Study 4: Out-group Holiday Exposure and Intergroup Social Distance: The Mediating Role of Negational Identity Salience

Study 4 aimed to improve Study 3 in two important ways. First, we aimed to examine which factors of the out-group holiday account for the distancing responses. As discussed, a cultural holiday should at least contain two important elements, one as culturally and collectively public celebration and the other as the time when the celebration occurs. Therefore, we separately manipulated the factor of time (i.e., holiday vs. usual day) and out-group activity (i.e., celebratory activity vs. daily activity). We contended that the out-group cultural celebration -- and not the time of the out-group holiday -- would be the important factor that activates negational identity salience and produces distancing responses toward the out-group members. This is because collectively celebratory activities where a group of cultural members are performing cultural icons and rituals are the crucial factor that highlights the homogeneous representation of an out-group. Consequently, the out-group celebratory activity *per se* can make salient an out-group culture, regardless of whether it is presented on the day of a holiday or a usual day. Conversely, the time of a holiday may only serve as a context factor that allows people to encounter celebratory activities. The time of a holiday *per se* may not be sufficient to produce social distancing toward the out-group if people are not exposed to the out-group celebratory activities during the holiday time. Second, we measured identity salience with questions that are specific to one's social identities. Explicitly measuring and defining social identity in the instruction was important so that people could report only group identities that were salience in their mind other than unrelated self-concepts. In addition, we asked participants to list up to 10 groups of their affirmational and negational identity rather than set an exact number of groups that

they should report. This procedure could improve sensitivity of the measurement to group identity salience without forcing participants to provide too limited or too much answers to the question. As previous, we aimed to show that negational identity salience would mediate the effect of out-group holiday exposure on intergroup distancing responses.

In addition, the current study also took into account the interaction effect between in-group identification and exposure to out-group celebratory activities. We contended that depending on one's level of in-group identification, exposure to out-group celebratory activities could compel a differential tendency toward negating the out-group and thus intergroup distancing. Research has shown that in-group identification is associated with intergroup differentiation (Hall & Crisp, 2008; Kosterman & Feshbach, 1989; Mummendey, Klink, & Brown, 2001). High in-group identifiers are more likely to perceive intergroup differences when they are exposed to the out-group and intergroup events than low in-group identifiers (Hall & Crisp, 2008; Rosner, Li, Chao, & Hong, 2010). For example, when student participants were exposed to the stereotype of old people, those who highly identified with the young group were more likely to behave contrastively to the prime, compared with those who identified with the young group in a lower level (Hall & Crisp, 2008). In addition, when American and Chinese participants were exposed to the Beijing Olympic Icon, a symbol that implies the competition of cultures, those high in national identification perceived greater intercultural differences between American and Chinese culture than their counterparts; this pattern did not occur when participants were not exposed to the Beijing Olympic Icon (Rosner et al., 2010). Consequently, in the current study, high in-group identifiers should more likely to perceive an essential out-group and thus distance themselves more from the out-

group when they are exposed to the out-group celebratory activity, compared with low in-group identifiers. In contrast, this pattern should not occur when participants are exposed to out-group daily activities, because high in-group identifiers commit their perception of intergroup differentiation only when they respond to an instigating event (Rosner et al., 2010).

Finally, the current study also examined whether the effects of out-group holiday exposure on intention of intergroup contacts would depend on the nature of the contacts (i.e., casual vs. close) and the contexts in which the interactions occur (i.e., immediate vs. general). We measured participants' willingness to engage in casual and close intergroup interactions in the general context as in Study 2, and also willingness to engage in intergroup interactions in the immediate out-group holiday context as in Study 3. We aimed to explore the potential convergent/divergent effects of out-group holiday exposure on intentions of intergroup contacts of differing nature and in differing contexts within a study.

Taken together, in general, we predicted that exposure to the out-group celebratory activity would be more likely to activate negational identity salience and reduce willingness to engage in intergroup interactions for high in-group identifiers than for low in-group identifiers, while exposure to the out-group daily activity would not elicit such a pattern. As such, we also predicted that negational identity salience would also mediate the interaction effect of in-group identification and exposure to the out-group celebratory activity on willingness for intergroup interactions. That is, negational identity salience would mediate the effect of in-group identification on willingness for intergroup interaction in the condition of exposure to out-group celebratory activity. In addition, we predicted that exposure to the out-group on the day of the out-group holiday (vs. a usual day) would not have

effect on participant's negational identity salience and willingness to interact with the out-group members regardless of their levels of in-group identification.

In Study 4, we implemented an experiment where Singaporean Chinese participants imagined their encounters with a Malay family demonstrating either daily or celebration activities on either a usual day or at the day of Hari Raya Puasa. In addition, Chinese identification was also measured. Figure 1 shows the conceptual model of the current study. We hypothesized that:

Hypothesis 5a: Exposure to Malay celebratory activity would be more likely to reduce willingness to engage in intergroup interactions for high Chinese identifiers than for low Chinese identifiers, while exposure to Malay daily activity would not elicit such a pattern.

Hypothesis 5b: Exposure to the Malay on the day of Hari Raya Puasa would not reduce willingness to engage in intergroup interactions regardless of participants' levels of Chinese identification.

Hypothesis 6a: Exposure to Malay celebratory activity would be more likely to activate negational identity salience for high Chinese identifiers than for low Chinese identifiers, while exposure to Malay daily activity would not elicit such a pattern.

Hypothesis 6b: Exposure to the Malay on the day of Hari Raya Puasa would not activate negational identity salience regardless of participants' levels of Chinese identification.

Hypothesis 7: Negational identity salience would mediate the relationship between in-group identification and willingness for intergroup interactions in the condition of exposure to the out-group celebratory activity, but not in the condition of exposure to the out-group daily activity.

Study 4

Method

Participants. One hundred and fifty-eight participants were recruited to participate in the study in exchange for course credits. One participant reported that she submitted the survey twice due to a computer issue; thus, the data for her second submission were removed. Following the exclusion criteria in Study 2, two participants who reported their Chinese identification three standard deviations above or below the rest of sample were excluded in the analysis. Thus, the final sample includes 156 participants (98 females and 58 males; $M_{age} = 21.9$, $SD = 1.71$; 38 Christian/Catholic, 57 Buddhist, 7 others, and 54 nonreligious)

Procedure. Participants completed the experiment online. Participants were informed that they would be participating in two unrelated research projects, with the first project investigating people's personal experiences and the second project investigating people's beliefs and attitudes. The holiday manipulations were introduced in the first project and identity salience and intergroup interaction measures were administered as part of the second project.

After the consent, participants were randomly assigned to one of the four conditions. They were asked to imagine a scenario either on the day of Hari Raya Puasa or a usual day. In the scenario, they are going to spend their time in a community function room where a Malay family are doing either celebrating activities or daily activities. They read the following instruction:

Today is Hari Raya Puasa (vs. a usual day). You and your family go to a function room in the community center to spend your leisure time. On one side of the room, a Malay family wearing traditional clothes are eating their

traditional food and celebrating (vs. wearing everyday clothes are eating their daily food and chatting).

This constitutes a 2 (Time: Hari Raya Puasa vs. Usual day) * 2 (Out-group activity: Celebratory activity vs. Daily activity) between-subject design of holiday manipulations. Participants were asked to write about the details of the scenario in their imagination. This served to engage them with the imagination task. Immediately after the imagination, they were asked to indicate their willingness to get into the function room to spend their time and report their current emotions.

After that, participants were instructed to complete a measure of identity salience and to fill in a social attitude survey. Willingness to engage in casual and close intergroup interactions with Malay members and Chinese identification were measured. At the end of the study, participants provided their demographic information such as age, gender, and religion, and indicated their feeling of difficulty, engagement, and awkwardness of the imagination task.

Measurements.

Task equivalence. To ensure that participants equally experienced the imagination task across conditions, at the end of the study, we asked them to indicate (1) how difficult the task was on a scale ranging from “1 -*extremely difficult*” to “5 - *extremely easy*,” (2) to what extent they engaged in the task on a scale ranging from “1 - *very slightly or not at all*” to “5 -*very much*,” and (3) to what extent they felt awkward during the imagination scenario on a scale ranging from “1 - *not at all*” to “7 - *very much*.” The amount of time participants spent in writing their imagination essays were also measured.

Willingness to interact with Malay members.

Willingness to stay in the room with the Malay family. The extent that participants would spend their leisure time in the function room with the Malay family served as an indicator of their willingness to interact with the Malay members in the immediate context. Participants provided their rating on a 7-point scale, ranging from “1 - *definitely won't*” to 7 - *definitely will*.” In the following, we refer to this measure as intention for immediate interactions to facilitate the description of results.

Willingness to engage in intergroup interactions with Malay members. As in Study 2, behavioral intention for intergroup contacts with Malay members was assessed by adapting the scale developed by Yogeeswaran and Dasgupta (2014). The factor structure of the scale is identical with that in Study 2, including willingness to engage in *close* ($\alpha = .85$) vs. *casual* ($\alpha = .95$) intergroup interactions (See Appendix II). A sample item is, “Have an intimate relationship with a Malay person” for close intergroup interactions and “Accept a Malay person as a neighbor” for casual intergroup interactions. Participants responded on a scale of “1 - *not at all willing*” to “7 - *extremely willing*.” In the following, we refer to the measure of willingness to engage in casual intergroup interactions as intention for casual interactions and that of willingness to engage in close intergroup interactions as intention for close interactions to facilitate the description of results.

Affirmational and negational identity salience. We measured both affirmational and negational identity salience. Affirmational identity salience was measured by the “groups which you describe yourself as a member of” question and negational identity salience was measured by the “groups which you describe yourself as not being a member of” question. These two questions were adapted from the self-description task in Cota and Dion (1986) to directly address social

categorizations of the self (Zhong, Phillips, et al., 2008). Participants were told that people can describe themselves as being members of a group or not being members of certain groups. They were provided with an example, “A social psychology professor at Nanyang Technological University may describe him/herself as a faculty member of this university. At the same time, this professor may also describe him/herself as ‘not being a cognitive psychologist.’” They were then asked “Please list up to 10 groups which you describe yourself as a member of (e.g., I am a X)” and “Please list up to 10 groups which you describe yourself as not being a member of (e.g., I am not a X)” in a counterbalanced order.

A “blind” coder coded the responses of all participants on both questions to check whether ethnicity was mentioned. For affirmation identity salience, participants who clearly mentioned their membership of Chinese group (e.g., “I am a Chinese”) received a score of one whereas those who made no clear reference to one’s Chinese membership were scored zero. Similarly, for negational identity salience, participants who clearly mentioned their nonmembership of Malay group (e.g., “I am not a Malay”) received a score of one whereas those who made no clear reference to one’s Malay nonmembership were scored zero.

Emotional responses. We aimed to control for participants’ emotional reactions to the out-group when we were conducting mediation analysis for negational identity salience. As in Study 3, participants were asked to indicate how intensely they felt two positive emotions (i.e., *happy*, *admiration*; $\alpha = .62$), four negative emotions (i.e., *hatred*, *anger*, *contempt*, *disgust*; $\alpha = .79$), and six agitation-quiescence-related emotions for intergroup anxiety (i.e., *agitated*, *on edge*, *uneasy*, *tense*, *calm*, *relax*; calm and relax were reverse coded; $\alpha = .81$) at the current time.

Participants provided their rating on a 7-point scale, ranging from “1 – *not at all*” to 7 – *very much*.”

Identification with Chinese culture. Chinese identification was measured with an identification scale adapted from Wan et al. (2007). Participants answered five questions on a 7-point scale ranging from “1 – *Strongly disagree*” to “7 – *Strongly agree*.” Sample items include “Being a Chinese is important to me” and “I am proud of being a Chinese.” The scale reliability was .90.

Results

Descriptive statistics and bivariate correlations are presented in Table 4. The three measures of willingness to interact with Malay members, including intention for immediate interactions, intention for casual interactions, and intention for close interactions, were significantly intercorrelated. In addition, negational identity salience was negatively related to intention for close interactions, $r(157) = -.23, p = .003$. So was Chinese identification, $r(157) = -.21, p = .01$. Negative emotions ($r(157) = -.19, p = .02$) and intergroup anxiety ($r(157) = -.24, p = .002$) was significantly related to intention for immediate interactions. This suggests that the measure of intention for immediate interactions is related to intergroup distancing. Furthermore, the percentage of affirmational and negational identity salience was moderate from 20% to 40%. Affirmational and negational identity salience was positively correlated, $r(157) = .32, p < .001$, suggesting that participants who mentioned one’s Chinese identity were also likely to negate the Malay identity. Nevertheless, as shown in Table 5, one-third of negational identity salience was reported without affirmational identity salience, suggesting that the out-group contrast process may not necessarily happen in the presence of the in-group category.

Task equivalence. As expected, the imagination task was equivalent across conditions. Two-way ANOVAs revealed neither main effects nor interaction effects on task difficulty, task engagement, feeling of awkwardness, and the amount of time they spent writing imagination essays ($ps > .13$).

Effect of holiday manipulations across high vs. low level of Chinese identification.

Our primary predictions were that when participants were exposed to out-group celebratory activities, high Chinese identifiers would report lower willingness for intergroup interactions and be more likely to report negational identity salience than low Chinese identifiers. In contrast, when participants were exposed to out-group daily activities, they would report a similar level of willingness for intergroup interactions and a similar rate of negational identity salience, regardless of their levels of Chinese identification. In addition, we also predicted that participants would report a similar level of willingness for intergroup interactions and a similar rate of negational identity salience, regardless of their exposure to the Malay family on the day of the holiday or a usual day. More formally, we predicted a significant out-group activity*Chinese identification interaction on willingness to engage in intergroup interactions with Malay members (*H5a*) and negational identity salience (*H6a*), and no significant effects (i.e., including main effect and interaction effects) concerning the manipulation of time (*H5b & H6b*).

We conducted our analysis in the following steps. First, all continuous variables were standardized. Second, linear (logistic) regression models controlling for age, gender, and religion with 5000 bootstrapping were adopted to test the interaction effect between Chinese identification and holiday manipulations on

willingness to engage in intergroup interactions with Malay members (affirmational and negational identity salience). Tables 6-7 show the results of model testing.

Interaction effect on willingness to interact with Malay members. For intention for immediate interactions, results revealed a significant main effect of out-group activity, $B = -.58, p = .009, 95\% \text{ CI} = [-1.00, -.12]$. This indicated that participants who imagined celebratory activities of a Malay family reported lower intention for immediate interactions than those who imagined daily activities of a Malay family. However, this effect did not depend on Chinese identification, as there was no significant interaction effect of out-group activity* Chinese identification on intention for immediate interactions, $B = -.22, p = .37, 95\% \text{ CI} = [-.71, .28]$. No other main effect, two-way interaction effect, and three-way interaction effect concerning the manipulation of the time of the holiday were found ($p > .22$).

For intention for casual interactions, results revealed a significant interaction effect of out-group activity* Chinese identification, $B = -.51, p = .04, 95\% \text{ CI} = [-.97, -.01]$. As shown in Figure 2, for participants who imagined out-group celebration activities, higher Chinese identification predicted lower intention for casual interactions ($B = -.47, p = .008, 95\% \text{ CI} = [-.77, -.20]$), whereas participants who imagined out-group daily activities were not influenced by Chinese identification ($B = .16, p = .50, 95\% \text{ CI} = [-.29, .56]$). No other main effect, two-way interaction effect, and three-way interaction effect concerning the manipulation of the time of the holiday were found ($p > .34$). For intention for close interactions, no significant effect was found ($p > .24$). Taken together, Hypothesis 5a was supported for intention for casual interactions and H5b was fully supported.

Interaction effects on affirmational and negational identity salience. We first tested whether holiday manipulations could have effects on the number of groups participants listed for affirmational and negational identities. On average, participants reported $M = 8.43$ ($SD = 2.53$) groups of affirmational identities and $M = 8.10$ ($SD = 2.96$) groups of negational identities. As expected, participants in different manipulation conditions did not differ their numbers of groups reported on either affirmation identities or negational identities, as two-way ANOVAs revealed neither main effects nor interaction effects of manipulations ($p > .39$).

For negational identity salience, results revealed a significant interaction effect of out-group activity* Chinese identification, $B = 1.42$, $p = .30$, 95% CI = [.29, 5.06]. As shown in Figure 3, for participants who imagined out-group celebratory activities, high Chinese identifiers reported higher percentages of negational identity salience than their counterparts ($B = .93$, $p = .048$, 95% CI = [.22, 4.01]). In contrast, participants who imagined out-group daily activities reported similar level of percentage of negational identity salience regardless of their Chinese identification ($B = -.60$, $p = .29$, 95% CI = [-3.75, .60]). For affirmational identity salience, results reflected no significant interaction effect of out-group activity* Chinese identification ($B = .92$, $p = .19$, 95% CI = [-.42, 5.15]). In addition, no main effect, two-way or three-way interaction effect concerning the manipulation of the time of the holiday was found for both types of identity salience ($ps > .05$). When controlling for the numbers of groups participants mentioned for affirmational and negational identity salience in the analysis, the results did not have significant change. Therefore, Hypothesis 6a and 6b was supported.

Moderated mediation model via negation identity salience by exposure to out-group activity. As Chinese identification and out-group activity had an

interaction effect on negational identity salience, we tested whether the mediating effect of negational identity salience was significant when participants were exposed to out-group celebratory activity (*H7*). As it is suggested that the main effect of the independent variable on the dependent variable is not required to be significant for mediation analysis (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Shrout & Bolger, 2002), we tested the mediation model for all three measures of willingness to interact with Malay members. In order to rule out the mediating effect of emotional responses, emotional responses were also controlled in the moderated mediation model. As the mediator is a categorical variable, we followed the procedures to assess moderated mediation model (Muller, Judd, & Yzerbyt, 2005) and those of mediation model with categorical mediators (Iacobucci, 2012). We examined two regressions via generalized linear model:

$$\begin{aligned} \text{Negational identity salience (Me)} = & \beta_{11} * \text{Chinese identification (X)} + \\ & \beta_{12} * \text{Out-group activity (Mo)} + \beta_{13} * \text{Chinese identification} * \text{Out-group activity} \\ & (X * Mo) \end{aligned} \quad (1)$$

$$\begin{aligned} \text{Willingness to interact with Malay members (Y)} = & \beta_{21} * \text{Chinese identification} \\ & (X) + \beta_{22} * \text{Out-group activity (Mo)} + \beta_{23} * \text{Chinese identification} * \text{Out-group activity} \\ & (X * Mo) + \beta_{24} * \text{Negational identity salience (Me)} + \beta_{25} * \text{Negational identity} \\ & \text{salience} * \text{Out-group activity (Me * Mo)} \end{aligned} \quad (2)$$

Moderated mediation is demonstrated when the following two conditions are satisfied: (1) significant interactions effect (β_{13}) between out-group activity (X) and Chinese identification (moderator, Mo) on negational identity salience (mediator,

Me) via logistic regression; and (2) significant mediating effect (β_{24}) of negational identity salience (mediator, Me) on willingness to interact with Malay members (Y) via linear regression.

As demonstrated, the interaction of out-group activity and Chinese identification was significant in predicting negational identity salience, satisfying the condition (1) of a significant β_{13} . Furthermore, Table 8 shows the results of model testing for mediation effect of negational identity salience. No significant mediating effect of negational identity salience was found on intention for immediate interactions ($p = .47$) or that of casual interactions ($p = .74$). Nevertheless, the mediating effect of negational identity salience was significant in predicting intention for close interactions ($B = -.53, p = .007, 95\% CI = [-.94, -.15]$), satisfying the condition (2) of a significant β_{24} .

To further interpret the moderated mediation model, we examined the conditional indirect effect of Chinese identification on intention for close interactions via negational identity salience across conditions of out-group activity exposure. Table 9 presents the estimates of paths for conditional indirect effect and their 95% confidence interval. Results showed that the conditional effect of Chinese identification was significant in the condition of out-group celebratory activity, because the coefficients of both paths were significantly different from zero (Fritz, Taylor, & MacKinnon, 2012; Hayes & Scharkow, 2013). In the condition of exposure to out-group celebratory activity, higher Chinese identification activated more negational identity that in turn led to lower intention for close interactions. In contrast, in the condition of exposure to out-group daily activity, the conditional effect was not significant, as the coefficient of a path was not significantly different from zero.

We also tested the mediation model using structure equation modeling in R software with the “lavaan” package. As negational identity salience is an endogenous categorical variables in the model, it was declared as an “ordered” variable. The estimating method was therefore diagonally weighted least squares (DWLS) by default. After adjustments from the initial saturated model, fit indexes of the final SEM model suggested that the data fit well with the data, $\chi^2 = 19.58$, $df = 19$, $p = .42$, CFI = .99, TLI = .98, RMSEA = .014. Our main results remain unchanged (Figure 5). Specifically, first, the interaction effect between exposure to outgroup celebratory activity and Chinese identification was significant in predicting negational identity salience which in turn significantly predicted willingness for close intergroup interactions. A test of the indirect effect showed that it was marginally significant, Estimate = -.22, $SE = .13$, $p = .08$. Second, the above interaction effect was also significant in directly predicting willingness for casual intergroup interactions, $B = -.58$, $SE = .28$, $p = .038$. Third, a main effect of exposure to outgroup celebratory activity was significant in predicting willingness to stay in room with the Malay, $B = -.42$, $SE = .21$, $p = .002$. Taken together, Hypothesis 7 was supported for willingness for close intergroup interactions.

Discussion

Study 4 aimed to demonstrate that only out-group celebratory activity would produce social distancing effect depending on one’s in-group identification and that negational identity salience would mediate this effect. The results generally supported the hypotheses but in complex ways that differentiated the processes of different types of intergroup distancing.

First, results supported our hypothesis that the celebratory activity but not the time of an out-group holiday would be the key to producing social distancing toward

the out-group members. Specifically, exposure to Malay celebratory (vs. daily) activities led to Singaporean Chinese's decreased willingness for intergroup interactions in the immediate holiday celebration context. Such exposure also led to, for high Chinese identifiers, decreased willingness to engage in casual intergroup interactions, and more negational identity salience and thus decreased willingness to engage in close intergroup interactions. These results support our argument that collective cultural celebrations can highlight a homogeneous and distinct out-group.

Second, we found support, though limited, for the hypothesis that negational identity salience mediated the interaction effect of in-group identification and out-group celebratory activity on social distancing toward out-group members. Specifically, negation to the Malay identity mediated the effect of Chinese identification on willingness for close intergroup interactions in the condition of exposure to Malay celebratory activities. However, we found that negational identity salience did not mediate the effects on willingness for immediate intergroup interactions and casual intergroup interactions. As in Study 2, we speculate that this is due to the differences between close and casual intergroup interactions. As discussed, close intergroup interactions -- specifically, inter-ethnic marriage -- is a core issue of intergroup boundary. As negational identity salience is a contrast process that makes distinctions between the self/in-group and the out-group (Leonardelli & Toh, 2015; Zhong, Galinsky, et al., 2008), it may be that negational identity salience only affect intergroup distancing regarding intergroup boundary but not that regarding more common intergroup interactions such as casual intergroup interactions.

In addition, the results concerning negational identity salience should also be interpreted with caution. The percentage of negational identity salience was as low

as 20% on average across conditions, though participants were explicitly asked to indicate their nonmembership in social categories. However, as shown in Figure 3, the percentage of reporting a negational identity could reach 40%-50% for high Chinese identifiers when they were exposed to Malay celebratory activities. This suggests that out-group cultural holiday indeed make salient negational identity, at least for people who highly identify with their in-group. Nevertheless, future study can compare results in experimental groups with a baseline percentage of negational identity salience by including a control condition where participants do not exposure to cultural elements. If the baseline percentage of negational identity salience is much lower than 20%, then it gains confidence to conclude that the context indeed makes salient negational identity.

Third, our results also supported the prediction that in-group identification and out-group holiday exposure would jointly influence the distancing effect toward out-group members but in a complex way. On the one hand, we found that high Chinese identifiers were more likely to report negational identity salience and thus lower willingness for close intergroup interactions after exposure to out-group celebratory activities than their counterparts. This indicates that high in-group identifiers see group membership (Chao, Kung, & Yao, 2015; Hall & Crisp, 2008) and, correspondingly, group nonmembership, as their important self-concepts. On the other hand, we found that high Chinese identifiers were also more likely to report lower willingness for casual intergroup interaction when they were exposed to out-group celebratory activities. We speculated that these may be because high (vs. low) in-group identifiers are more inclined to assess and use the primed information of the contrastive out-group for intergroup interactions in the general context, as they tend to see the world through a group lens (Hall & Crisp, 2008).

Fourth, we found that exposure to an out-group holiday indeed had a distancing effect regarding willingness for close intergroup interactions. Specifically, we found a significant indirect effect of Chinese identification on willingness for close intergroup interactions via negational identity salience only in the condition of exposure to Malay celebratory activities. We also found intergroup anxiety would mediate the effect of exposure to Hari Raya Puasa on willingness for close intergroup interactions. This revives our speculation in Study 2 that exposure to out-group holidays may have divergent effects (e.g., suppression effect; Shrout & Bolger, 2002) on willingness for close intergroup interactions. Future studies should try to carefully address this potential divergent effect of out-group cultural holidays on close intergroup interactions.

Finally, across the three measures of willingness to engage in intergroup interaction, willingness for casual intergroup interactions may be the best measure of intergroup social distance. This is because willingness for close intergroup interaction is measured with three items about interracial relationship, and thus in fact a measure of willingness for interracial relationship in the current research. Having interracial relationships with a Malay outgroup may indicate not only intergroup interactions, but also cultural issues regarding maintaining one's cultural identity. Therefore, the current result of the mediating effect of negational identity salience may indicate that negational identity salience would only have an effect on intergroup interactions that regard to the maintenance of cultural boundary but not intergroup interactions in general. Thus, future results should try to replicate the current findings and identify the boundary concerning the effect of negational identity salience.

Overall, our results showed that exposure to Malay celebratory activities would produce Chinese's distancing toward Malay members depending on their Chinese identifications. Furthermore, these results showed that such effects and their mechanisms indeed depended on the nature and the contexts of intergroup distancing.

Chapter VI General Discussion

The current thesis is the first body of research to explore how exposure to holidays of out-group cultures can lead to social distancing toward the out-group members in a multicultural society and to uncover the mediating processes underlying these effects. Across four studies, we found that exposure to Hari Raya Puasa and Deepavali was associated with Singaporean Chinese's increases in expression of linguistic distance in Twitter updates (Study 1), and caused decreases of self-report willingness to interact with the Malay members in the immediate celebration context (Studies 3 and 4) and in the general casual and close intergroup context (Studies 2 and 4). We also revealed that the component of cultural celebrations of an out-group holiday drove the above effects (Study 4). Furthermore, in Study 4, we demonstrated that exposure to Malay celebratory activities and Chinese identification jointly influenced in willingness for close intergroup interactions with Malay members and negational identity salience would mediate such an interaction effect. There are several important theoretical and practical implications of this work.

Theoretical contribution

Implications for studies based on cultural events

The current study demonstrated that exposure to holidays from other cultures can produce social distancing toward those cultures. This contributes to the cultural holiday studies in multiple disciplines, such as sociology and tourism studies. It extends the understanding of the social impacts of cultural holidays in our increasingly globalized world, fulfilling the need in enhancing social and cultural relevance in social psychology research (Chiu & Hong, 2006; Liu & Hong, 2010).

Importantly, the current research also presents cultural holidays as important intergroup phenomena that should be studied in the future to test major intergroup and cultural theories. Previous studies in intergroup relations and social identity were conducted mainly under the correlational and lab-experimental designs. Although some cross-sectional studies conducted in the field exist in the literature, the majority of these field studies were conducted around significant social events, such as the Olympic Game and the Hong Kong hand-over in 1997 (Gries et al., 2011; Hong, et al., 2004). Since these events do not occur at sufficiently regular intervals, cultural holidays present better, more regular material for research as cultural holidays happen regularly in societies worldwide. Therefore, future studies should attempt to conduct field experiments during cultural holidays in order to examine intergroup interactions in real life.

Furthermore, the current research may hold important implications on the effects of collective actions and social movements based on festivals and feasting events. Though we focused our investigations on ethnic cultural holidays, we show that the celebratory activities of cultural holidays are the key to producing distancing effects. As celebration activities are indeed the media for showcasing the cultural values and asserting cultural identity, they can be conceptualized as manifestations of identity performance (i.e., “the purposeful expression of behaviors relevant to those norms conventionally associated with a salient social identity”; Klein, Spears, & Reicher, 2007, p. 3). As such, our result indicates that identity performances may produce intergroup distancing responses. This implication is important because identity performance is often a strategy for collective actions and social movements that fight for in-group interests (Hopkins & Greenwood, 2013; Klein et al., 2007). First, it suggests that our current findings can be generalized into holidays of other

group cultures, such as Women's Day or Gay Pride Parade. Second, it warns that identity performances may increase opposition to and reduce collaboration with out-group members. Future research should focus on how we can better promote group interests through social movement events by eliminating the distancing effect of these events.

Implications for cultural psychology

With the rapid progress of globalization, many cultural holidays are being commercialized and celebrated throughout the world. For example, Christmas, as an original Christian holiday, has been highly secularized and celebrated around the world by non-Christian people (Sigley, 2007). Thus, exposure to out-group cultural holidays become an important form of indirect cultural contact. The current research is the first research endeavor in social psychology to address one of the intergroup consequences of such exposure. Extending the psychology of globalization, we identified cultural holiday as a potential contextual factor that would lead to intergroup distancing when people were exposed to foreign cultures. We contend that this occurs likely because cultural holidays contain collective cultural celebrations that may essentialize representations of cultures. Indeed, our studies supported the above argument by showing that the distancing effect of exposure to out-group holidays derived from exposure to out-group celebratory activities.

Implications for intergroup research

The current thesis theoretically replicates previous important findings that exposure to a salient out-group would lead to intergroup social distancing such as unwillingness to contact with the out-group members (e.g., Shah et al., 2004; Esses & Dovidio, 2002). New within our research, however, is that such distancing reactions can occur in an out-group holiday context – an intergroup context that

have not been investigated. Our findings suggest that out-group holiday contexts are important intergroup contexts that present a homogeneous out-group that distinguish from the in-group. These findings are somewhat counterintuitive in the sense that lay people mainly perceive holiday contexts associated with positive affects while governments believe that cultural holidays can promote positive intergroup contacts. Nevertheless, future studies should try to investigate how to make use of positive affects associated with cultural holidays to reduce negative intergroup consequences and promote intergroup exchanges.

The current thesis is, to our knowledge, the first to demonstrate that negational identity salience is one of the cognitive processes that drives distancing responses after exposure to a salient out-group. In Study 4, we found that negational identity salience did not always require an in-group identity to be salient. This supports the theoretical argument for the outgroup-only contrast (Leonardelli & Toh, 2015; Simon, 1993) and challenges many prior studies on intergroup exclusions, which generally assumed that negational identity salience required an in-group categorization. This has important theoretical implications. First, the result may support the theoretical claim that many situations which are usually considered intergroup situations may be conceptualized more adequately as quasi-intergroup situations where only the out-group is salient (Simon, 1993). Second, it calls for theoretical and empirical research to investigate the potential differences when a negational identity do or do not accompany with an in-group identity. For example, it is still unknown when only the negational identity is salient. In addition, it is also unknown whether salience of an negational identity with and without an in-group identity would produce different effects on the in-group and the out-group. Future studies should try to address these important issues.

The current thesis also extends the understanding of a person's willingness to engage in intergroup contacts. Previous studies have distinguished between willingness to engage in intergroup contacts and with other intergroup responses (e.g., social policy endorsement; Dovidio, Brigham, Johnson, & Gaertner, 1996; Esses & Dovidio, 2002). These studies suggested that intergroup emotions are dominant features of intergroup contacts and interactions, while that cognitive elements such as stereotypes are basic for intergroup decision making such as social policy endorsement. However, our results extend those studies by further revealing the differentiations among persons' willingness to engage in intergroup contacts in different natures (e.g., casual vs. close) and in different contexts (e.g., the immediate vs. general context). Our results suggest that cognitive machinimas can also drive intergroup interactions. For intergroup interactions in the close context, such as inter-ethnic marriage, cognitive component (e.g., negational identity) are the important motivating processes.

Methodological Implications

The current thesis is, to our knowledge, the first to combine a large-scale observational study based on social media data and traditional lab-based experiments to investigate an intergroup issue. Though some observational studies exist in the intergroup literature, they were based on self-report by measuring intergroup experiences before and after out-group exposure surrounding some mega events, such as Beijing Olympic Game (S. Cheng et al., 2011; Gries et al., 2011; Gries et al., 2010). This was limited because the state in which they reflectively responded to these measures before or after the intergroup event may differ from their ongoing experiences during the event (Cohn et al., 2004). Our current research extends previous research by collecting unobtrusive psychological responses

through online social media updates. Using this method, we were able to show that people expressed increased psychological distance during out-group cultural holidays. This suggests that online social media data are valid for measuring intergroup experiences around large-scale cultural events. Therefore, future studies can make use of online data to test or generate hypotheses regarding intergroup studies.

Practical implications

The current thesis also has important practical implications for event management and multicultural policies. The results of this thesis call for cautions in the management of cultural holiday, at least cultural holidays of the minorities. Multicultural countries have preserved cultural holidays of minority groups to help maintain their cultural heritage and identities. However, just as the example illustrated at the beginning of this thesis, and what our results showed, such collective celebration of minority holidays may in fact emphasize cultural differences and potentially lead to intergroup distancing, at least at the perspective of the majority groups.

Nevertheless, and importantly, by identifying the mechanisms underlying distancing responses to the out-group holidays, the current thesis also implies solutions for eliminating the distancing responses. For example, studies suggest that individuals' contrast perceptions to an out-group can be reduced by an interpretation mindset, such as thoughtful elaboration (Stapel & Koomen, 2001; Torelli et al., 2011) and cultural learning mindset (Chao et al., 2015). In addition, an out-group with high entitativity may not only lead to intergroup distancing. Past research has by contrast shown that entitativity of an out-group can enhance positive intergroup evaluations if the out-group is considered ally by the in-group members (Castano,

Sacchi, & Gries, 2003). For example, for U.S citizen who consider the European Union (EU) is the US ally reported more positive towards actions of the EU towards US when EU is presented as a group with high entitativity. Therefore, the framing of intergroup relations to the public in ways that demonstrate the alliance of a minority group may help reduce the distancing responses toward the minorities in the context of their holidays.

Limitations and future directions

The current research has three major limitations. First, we did not include a true control condition in Study 3 & 4 that does not involve out-group exposure. In these two studies, we exposed all participants to out-group members and thus no baseline level of distancing from Malay members was established. Thus, it is unclear if intergroup distancing really happened in the conditions of exposure to out-group holiday in these two studies. Though we have established in Study 2 that intergroup distancing happened in the exposure to out-group holiday condition (i.e., Hari Raya Puasa) by comparing with exposure to an in-group holiday (i.e., Chinese New Year) and a control holiday that does not involve explicit in-group or out-group (i.e., Labor Day), future research should improve the design of Study 3 & 4 by including a true control condition.

Second, our research only speaks to the context where the majority group perceive holidays from minority groups. It is unclear whether our results can be generalized into contexts where a minority group perceive a holiday from the majority group or that from another minority group in the society. In general, as discussed, we expected that minority (vs. majority) people will show weaker distancing responses to holidays from other cultural groups, because they endorse multiculturalism more (vs. less) strongly (Verkuyten, 2005) and are likely to

develop dual identification (Gillespie et al., 2010; Tadmor et al., 2009).

Nevertheless, there may also be cases where minority people resist more to the holidays of the major or other minority group, such that when minority people see their native culture and the out-group culture as oppositional and conflict (Benet-Martínez & Haritatos, 2005; Benet-Martínez, Leu, Lee, & Morris, 2002). Therefore, future research should try to examine the effects of cultural holidays on intergroup relations in various intergroup contexts.

Third, it is unclear that whether our results can be generalized into other seemingly cultural holidays. As cultural holidays are often commercialized through the globalization process, they often lose their cultural origins and become a secular holiday or an international event. In this case, it is less likely for them to draw attention to an out-group and form a homogeneous and distinct representation of the out-group, and thus less likely to induce intergroup distancing. Therefore, future research should try to explore whether participants' perception of an out-group holiday as cultural authentic would moderate the distancing effect.

The current thesis focused on one cognitive mechanism (i.e., negational identity salience) underlying distancing effects of exposure to out-group cultural holidays. However, it is also likely that the mediating mechanisms involve the affective ones, such as intergroup anxiety and cultural identity threat. Indeed, in study 4, we have partially demonstrated that intergroup anxiety can be one of the underlying mechanisms of the distancing effect. However, future studies should try to develop systematic investigation on the mediating role of intergroup anxiety. In addition, it is likely that celebrations of out-group holidays induce realistic threat to the in-group. For example, in 2013, a petition on the U.S. White House website created by Asian Americans sought to establish the Lunar New Year as a federal

holiday (“Establish Lunar New Year as a National Holiday,” 2013). Thus, perceiving out-group holidays are overly celebrated in the society may induce perception of arrogant and political ambitious of the out-group. Furthermore, it is also likely that out-group holidays may induce perception of cultural intrusion, as out-group symbols are mass displayed even in the sacred place of a cultural group. Therefore, future studies should investigate potential affective mechanisms underlying distancing effects of exposure to out-group cultural holidays.

In addition, the current thesis focused only on the effect of passive exposure to out-group cultural holidays. However, people may also actively participate in the out-group holidays. It is unknown what effects will be in this case. There can be different hypotheses when people actively participate in out-group celebratory activities. On the one hand, based on intergroup contact theory (Ata et al., 2009; Pettigrew & Tropp, 2006) and research on multicultural experience (Chao et al., 2015; Tadmor, Hong, Chao, Wiruchnipawan, Wang, 2012), intergroup experiences can reduce intergroup bias and promote cultural learning. Thus, participating in out-group celebratory activities may have positive effect on reducing intergroup bias and increase intergroup understanding. On the other hand, according to intergroup anxiety theory, a lack of familiarity of the intergroup context would generate intergroup anxiety and thus increase intergroup distancing (Stephan, 2014). Studies have found that people showed more intergroup anxiety in the intergroup context where there is no clearly defined social scripts for behaviors than where an accessible script to guide behavior is offered (Avery, Richeson, Hebl, & Ambady, 2009; Towles-Schwen & Fazio, 2003). Hence, participating in out-group celebratory activities may induce anxiety because people may not be familiar with what they should and should not do during the activities. This anxiety may in turn increase

intergroup distancing. Therefore, future research should investigate the intergroup consequences of actively joining into the out-group cultural holidays.

Conclusions

Though cultural holidays have been investigated as important symbolic and identity phenomena in sociology and other disciplines, social psychology has yet to afford them proper attention. The present thesis is a critical first step to understand how exposure to holidays of out-group cultures can produce social distancing toward the out-group members through processes of negating out-group identities and experiences of negative intergroup emotions. As the world becomes more interconnected, experiences of out-group cultural holidays will multiply. Thus, understanding the impacts of cultural holidays on intergroup relations and employing cultural holidays as useful tools for increasing mutual acceptance are inherently important goals for future research.

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Notes

¹ Chinese New Year and National Day may not be the appropriate comparisons in the current study, though they both involve collective celebration in public but does not involve an outgroup. For Chinese New Year, many business including shopping malls, supermarkets, and food courts will be closed at the day of the holiday. This creates a situation that disrupts people's daily routine and is different from the situations in Hari Raya Puasa and Deepavali. Thus, Chinese New Year is not a good baseline as an average weekend in the current study. For National Day, it celebrates the identity as a Singaporean, which is a superordinate and inclusive identity of ethnic identities. Based on common in-group identity model, studies have shown that priming an inclusive identity can reduce intergroup bias and enhance intergroup tolerance (Crisp, Stone, & Hall, 2006; Gaertner, Mann, Murrell, & Dovidio, 1989; Turner & Crisp, 2010). Thus, National Day may prime an inclusive identity and thus reduce distancing towards other ethnic out-groups. This makes National Day inappropriate to be a comparison in the current study.

² A scatter plot analysis showed that the low Cronbach's Alpha of the positive emotional scale was due to three participants who reported low happiness, but high admiration.

Tables

Table 1. Sample size, volume of tweets, and volume of words in Study 1

	Date/Total	N	No. of Tweets	No. of Words
Hari Raya Puasa	2011.8.30	100	605	5,502
	2012.8.19	244	1,356	13,071
	2013.8.08	435	2,586	24,638
	<i>Total</i>	<i>606</i>	<i>4,547</i>	<i>43,211</i>
Deepavali	2011.10.26	117	629	6,379
	2012.11.13	295	1,709	16,964
	2013.11.02	495	3,672	33,584
	<i>Total</i>	<i>695</i>	<i>6,010</i>	<i>56,927</i>
Chinese New Year	2011.02.03	34	201	2,142
	2012.01.23	137	809	8,602
	2013.	354	1,788	16,784
	<i>Total</i>	<i>434</i>	<i>2,798</i>	<i>27,528</i>
Labor Day	2011.05.01	70	494	5,099
	2012.05.01	190	1,291	13,309
	2013.05.01	400	2,231	21,543
	<i>Total</i>	<i>527</i>	<i>4,016</i>	<i>39,951</i>

Table 2. Word frequencies of LIWC categories and mean of linguistic distance during out-group holidays in Study 1

	Hari Raya Puasa (N=606)				Deepavali (N=695)				Chinese New Year (N=434)				Labor Day(N=527)			
	Raw		Baseline		Raw		Baseline		Raw		Baseline		Raw		Baseline	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
<i>Linguistic distance</i>	1.23	3.38	0.98	1.07	1.22	3.05	0.95	1.11	1.08	2.97	0.99	0.97	0.73	2.94	0.99	1.04
Words > 6 letters	16.80	10.89	15.88	2.79	16.55	10.11	15.78	2.87	15.39	10.84	15.89	2.74	15.13	8.89	15.87	2.72
1st person singular (I, me)	5.05	4.91	5.04	1.60	4.76	4.14	5.03	1.66	4.68	4.65	5.08	1.55	5.02	4.69	5.05	1.51
Articles (a, the)	3.98	4.05	4.01	1.12	4.16	3.87	4.01	1.19	3.60	3.67	3.96	1.15	3.80	3.68	3.98	1.11
Present tense (is, does)	8.53	6.51	8.69	1.64	8.63	5.94	8.76	1.70	7.70	5.54	8.62	1.57	8.86	5.77	8.62	1.59
Discrepancy (should, would)	1.06	2.13	1.25	0.44	1.24	1.93	1.26	0.44	1.19	2.09	1.22	0.39	1.39	2.59	1.22	0.39
<i>Negative emotions</i>	2.97	5.10	3.08	1.14	3.13	5.89	3.07	1.13	2.27	4.26	2.94	1.16	2.80	5.77	2.99	1.20
Anxiety	0.29	0.99	0.40	0.19	0.33	0.95	0.40	0.20	0.31	2.46	0.38	0.24	0.35	1.37	0.38	0.23
Anger	1.41	3.64	1.31	0.70	1.46	3.73	1.30	0.70	0.97	2.57	1.23	0.69	1.23	4.06	1.25	0.74
Sad	0.60	1.77	0.62	0.32	0.62	2.10	0.63	0.33	0.44	1.56	0.61	0.37	0.44	1.19	0.61	0.37
Swear	0.59	2.06	0.59	0.53	0.76	4.25	0.59	0.53	0.34	0.96	0.55	0.52	0.50	2.84	0.56	0.54

Note. The measure of linguistic distance was computed by averaging the LIWC scores for articles, words of more than six letters, first-person singular pronouns (reversed), present-tense verbs (reversed), and discrepancy words (reversed). The word category of negative emotion includes words from categories of anxiety, anger, and sad.

Table 3. Descriptive statistics and bivariate correlations in Study 3

	Mean	SD	1	2	3	4	5	6
1 Stay in hall with the Malay	3.76	1.77						
2 Affirmational identity salience	.11		.09					
3 Negational identity salience	.06		.07	.56**				
4 Positive emotion	3.65	1.44	.38**	-.01	-.03			
5 Negative emotion	1.41	.83	-.06	.03	-.05	.03		
6 Intergroup anxiety	2.09	1.02	-.21	-.05	-.12	-.17	.73**	

Note. N=79. Stay in hall with the Malay = Willingness to stay in hall with the Malay family. Variables including willingness to work with a Malay colleague, affirmational identity, and negational identity salience are binary variables, and thus their means are percentage and with no standard deviation. * $p < .05$; ** $p < .01$.

Table 4. Descriptive statistics and bivariate correlations in Study 4

	Mean	SD	1	2	3	4	5	6	7	8
1 Immediate intergroup interactions	4.51	1.47								
2 Casual intergroup interactions	6.11	.94	.19*							
3 Close intergroup interactions	3.63	1.49	.17*	.41**						
4 Affirmational identity salience	.35		.07	-.05	-.08					
5 Negational identity salience	.21		-.13	-.07	-.23*	.32**				
6 Positive emotion	3.87	1.39	.15	.17*	.19*	-.07	-.03			
7 Negative emotion	1.30	.63	-.19*	-.42**	-.28**	.12	.00	-.15		
8 Intergroup anxiety	1.98	.86	-.24**	-.42**	-.33**	.02	.03	-.31**	.66**	
9 Chinese identification	5.22	1.01	-.00	-.09	-.21**	.10	.06	.06	.15	.07

Note. N=156. Variables including affirmational identity and negational identity salience are binary variables, and thus their means are percentage and with no standard deviation. * $p < .05$; ** $p < .01$.

Table 5. Crosstab table of affirmation * negational identity salience in Study 4

	score	Negational identity salience	
		0	1
Affirmational identity salience	0	90	11
	1	34	21

Note. Participants who clearly mentioned their ethnicity to a given question (e.g., “I am a Chinese,” “I am not a Malay”) received a score of one. Those who made no clear reference to ethnicity were scored zero.

Table 6. Regression for intentions for immediate interactions, casual interactions, and close interactions in Study 4 (Hypothesis 5a & 5b)

	Z(Immediate intergroup interactions)		Z(Casual intergroup interactions)		Z(Close intergroup interactions)	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Time (1= Hari Raya Puasa)	-.06	-.03	.01	.03	.30	.27
Activity (1= Celebration activities)	-.58**	-.55*	-.18	-.14	.11	.11
Time* Activity	-.02	-.06	.30	.26	-.08	-.06
Z(Chinese identification)		.00		.11		-.20
Time* Z(Chinese identification)		.33		.02		.20
Activity*Z(Chinese identification)		-.22		-.51*		-.20
Time*Activity*Z(Chinese identification)		.00		.35		.02
Z(Age)	.05	.04	-.15	-.15	.08	.07
Gender (1= Female)	-.04	-.07	-.12	-.13	.02	.04
Religion_1 (1= Christian/Catholic)	-.18	-.21	-.16	-.19	-.50*	-.56*
Religion_2 (1= Buddhism)	.02	-.04	-.31	-.28	-.33	-.29
Religion_3 (1 = Others)	-.94*	-.89*	-.10	-.02	-.42	-.28
<i>R</i> ²	.13	.16	.05	.09	.06	.11

Note. N=156. Values are unstandardized coefficient. * $p < .05$; ** $p < .01$. Analyses were run with linear regression with 5000 bootstrapping samples.

Table 7. Regression for affirmational identity salience and negational identity salience in Study 4 (Hypothesis 6a & 6b)

	Affirmational identity salience		Negational identity salience	
	Step 1	Step 2	Step 1	Step 2
Time (1= Hari Raya Puasa)	-.10	-.12	-.68	-.67
Activity (1= Celebration activities)	.07	-.15	.62	.43
Time* Activity	.59	.83	.36	.56
Z(Chinese identification)		.15		-.53
Time* Z(Chinese identification)		-.48		1.10
Activity*Z(Chinese identification)		.92		1.42*
Time*Activity*Z(Chinese identification)		-.59		-2.15
Z(Age)	.16	.19	.26	.24
Gender (1= Female)	.99*	1.11*	.86	1.01
religion_1 (1= Christian/Catholic)	.14	.19	.04	-.03
religion_2 (1= Buddhism)	-.32	-.35	-.56	-.72
religion_3 (1 = Others)	.34	.09	1.20	1.09
Cox & Snell R^2	.05	.09	.08	.11

Note. N=156. Values are unstandardized coefficient. * $p < .05$; ** $p < .01$. Analyses were run with logistic regression with 5000 bootstrapping samples.

Table 8. Regression results for testing the moderated mediation model for negational identity salience in Study 4 (Hypothesis 7)

	Z(Immediate intergroup interactions)	Z(Casual intergroup interactions)	Z(Close intergroup interactions)
	B	B	B
Time (1= Hari Raya Puasa)	.07	.31	.47
Activity (1= celebration activities)	-.48	.13	.37
Time* Activity	-.15	-.09	-.34
Z(Chinese identification)	-.01	.15	-.19
Time* Z(Chinese identification)	.32	.00	.21
Activity*Z(Chinese identification)	-.19	-.45	-.03
Time*Activity*Z(Chinese identification)	-.05	.33	-.11
Negational identity salience	-.16	-.06	-.53**
Negational identity salience*Z(Chinese identification)	.19	.06	-.09
Z(Positive emotion)	.19	.14	.21
Z(Negative emotion)	-.11	-.28*	-.10
Z(Intergroup anxiety)	.00	-.20	-.15
<i>R</i> ²	.22	.33	.29

Note. N=156. B= unstandardized coefficient. Analyses were run with linear regression with 5000 bootstrapping samples. Age, gender, and religion was controlled in the regression models. * $p < .05$; ** $p < .01$.

Table 9. Moderated mediation results for negational identity salience across conditions of exposure to out-group activity in Study 4: Chinese identification on intentions for close interactions (Hypothesis 7)

Activity	a path		b path	
	B	CI	B	CI
Celebratory	.93	[.22, 4.01]	-.59	[-1.12, -.12]
Daily	-.60	[-3.75, .60]	-.51	[-1.15, .37]

Note. N=156. The a path = Chinese identification → negational identity salience; The b path = negational identity salience → willingness for close intergroup interactions. B= unstandardized coefficient. Analyses were run with linear regression with 5000 bootstrapping samples. Age, gender, and religion was controlled in the regression models.

Figures

Figure 1. Conceptual model and hypotheses in Study 4.

Figure 2. Willingness to engage in casual intergroup interactions for high and low Chinese identification participants exposed to Malay daily or celebratory activity in Study 4.

Figure 3. Negational identity salience for high (+1 SD) and low (-1 SD) Chinese identification participants exposed to Malay daily or celebratory activity in Study 4.

Figure 4. Feeling of intergroup anxiety for participants exposed to Malay daily or celebratory activity at a usual day or Hari Raya Puasa in Study 4.

Figure 5. Structural equation model in Study 4. The final model was adjusted from the initial saturate model. Model fit index: $\chi^2 = 19.58$, $df = 19$, $p = .42$, CFI = .99, TLI = .98, RMSEA = .014.

Appendix I

A sample of English words from Chinese dialects for user detection

Words	Origin	Full/Sample expression	Meaning
bao	Cantonese	Tah Bao	Take away (used only when cooked food is concerned). A hillbilly, someone with little dress sense. a common Chinese male name
beng	Hokkien	Ah Beng	Means "No" or "not." Boh Liao = boredom; Boh Pien = no choice
boh	Hokkien	Boh Liao/Boh Pien	Means "cannot." Buay Song = to be unhappy or angry about something
buay	Hokkien	Buay Song	Mong Cha Cha = be unaware of what is going on around.
cha	Cantonese	Mong Cha Cha	Chao Keng = feigning sickness or injury
chao	Hokkien/Teochew	Chao Keng	A transvestite, who will often be assumed to be a Thai transsexual.
gua	Hokkien	Ah gua	Hao Lian = Slang term for "boast" or to describe someone that is narcissistic.
hao	Teochew	Hao Lian	Chao Keng = feigning sickness or injury
keng	Hokkien	Chao Keng	Xia Lan = Arrogant, egoistic, pretentious.
lan	Hokkien/Teochew	Xia Lan	Tagged at the end of a sentence in a similar manner as "lah".
leh	Mandarin		A hillbilly, someone with little dress sense. a common Chinese male name
lian	Hokkien	Ah Lian	Means "already" or "over," or generally indicates the past tense
liao	Hokkien		Slang term for a loan shark.
long	Cantonese	Ah Long	Mong Cha Cha = be unaware of what is going on around.
mong	Cantonese	Mong Cha Cha	Buay Pai = not bad
pai	Hokkien	Buay Pai	Pang She = slang for "to be stood up," or cancelled upon at the last minute
pang	Hokkien/Teochew	Pang Seh	Boh Pien = no choice
pien	Hokkien	Boh Pien	Pang She = slang for "to be stood up," or cancelled upon at the last minute
seh	Hokkien/Teochew	Pang Seh	Used to express pleasure; Buay Song = to be unhappy or angry about something
song	Hokkien/Cantonese	Buay Song	Xia Lan = Arrogant, egoistic, pretentious. Xia Suay = Disgrace, embarrassment, unlucky.
xia	Hokkien	Xia Lan/Xia Suay	

Appendix II

The scale and factor analysis for willingness to engage in intergroup contact in Study 2 & 4

	Items	Study 2		Study 4	
		Factor 1	Factor 2	Factor 1	Factor 2
1	Marry a Malay person	0.95		0.95	
2	Have an intimate relationship with a Malay person	0.95		0.95	
3	Accept a Malay person as a family member through marriage	0.73		0.71	
4	Have a Malay person as a close friend		0.78		0.75
5	Confide in a Malay person		0.80		0.79
6	Accept a Malay person as a neighbor		0.87		0.91
7	Accept a Malay person as a co-worker		0.86		0.80
8	Accept a Malay person as a casual acquaintance		0.91		0.95
9	Visit a Malay person in his or her home		0.91		0.88
10	Have a Malay person visit your home		0.91		0.86
11	Have a Malay person as a casual acquaintance		0.92		0.95
12	Attend a cultural event sponsored by a Malay organization				0.74

Note. Factor analyses were conducted with Principle component analysis with direct oblimin rotation. In Study 2, the twelfth item was removed in order to reduce the possibility that participants could guess the true purpose of the study.