Intergroup threat, knowledge of the outgroup, and willingness to purchase ingroup and outgroup products: the mediating role of intergroup emotions

Long, F.; Ye, Z.; Liu, G.

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RESEARCH ARTICLE

Intergroup threat, knowledge of the outgroup, and willingness to purchase ingroup and outgroup products: The mediating role of intergroup emotions

Feiteng Long[1,2] | **Zi Ye**[1] | **Guohua Liu**[2]

[1]Institute of Psychology, Leiden University, Leiden, Netherlands

[2]School of Business and Management, Shanghai International Studies University, Shanghai, China

Correspondence
Guohua Liu, School of Business and Management, Shanghai International Studies University, Shanghai, China.
Email: ghliu@shisu.edu.cn

Abstract

Established theories have acknowledged that intergroup threat is one of the key determinants of intergroup attitudes and behaviours, but how intergroup threat can affect consumer behaviour remains unclear. Here, four preregistered studies (total $N = 988$) examined the effect of intergroup threat (manipulated in terms of realistic and symbolic threats) on consumers' willingness to purchase ingroup and outgroup products. In the context of China–West relations, we measured Chinese consumers' willingness to purchase Chinese (ingroup) and Western (outgroup) products. These studies together revealed that realistic and symbolic threats (versus control) increased willingness to purchase ingroup products and decreased willingness to purchase outgroup products, regardless of the product category. Studies 3a and 3b also measured knowledge of the outgroup as a potential moderator, revealing that realistic threat (versus control) reduced willingness to purchase outgroup products only among individuals who had less knowledge of the outgroup. Furthermore, Study 3b showed that the intergroup threat manipulation indirectly influenced consumers' willingness to purchase ingroup/outgroup products through increased anger and decreased hope. We discussed the contributions to the intergroup relations and consumer behaviour literature and the implications for transnational marketing practices, as well as the limitations of this research.

KEYWORDS
intergroup emotions, intergroup threat, knowledge of the outgroup, willingness to purchase

1 | INTRODUCTION

In recent years, some multinational brands found themselves facing growing backlashes from local consumers. In many cases, threats from foreign countries played a crucial role in these backlashes. For example, after running into trouble with Chinese consumers due to value conflicts earlier in 2021, H&M almost vanished from Chinese digital world in just 24 h. The fierce boycott campaign primarily targeted H&M, but it also hit many other Western clothing brands such as Nike, Adidas, and Puma—all of them are members of the Better Cotton Initiative, which was believed by Chinese consumers to promote "incorrect" moral values that threatened the Chinese value system. Four years ago, the security threat from the US deployment of the Terminal High Altitude Area Defense (THAAD) missile system in South Korea led to Chinese consumers carrying out a nationwide boycott against Lotte, a South Korean multinational company that provided land for THAAD. Eventually this massive campaign erased all of Lotte's business in China. Although Chinese consumers' fierce reactions to the threats from foreign countries imply an important intergroup phenomenon in consumer behaviour, the role that such threats play in

Feiteng Long and Zi Ye contributed equally to this work.

consumers' willingness to purchase outgroup products remains unclear in the intergroup literature.

In the intergroup literature, a perceived threat from the outgroup is described as a basic factor that motivates ingroup bias (Stephan et al., 2009). Researchers found that, when people feel threatened by the outgroup, they are likely to hold more negative attitudes towards the outgroup (Landmann et al., 2019), perceive a better ingroup profile (Cadinu & Cerchioni, 2001), and prefer the ingroup over the outgroup in resource allocation (Yuki & Yokota, 2009). Such fundamental tendencies can be extended to more practical aspects, such as lack of support for policies favourable to the outgroup (Durrheim et al., 2011) and collective action against the outgroup (Shepherd et al., 2018). In this sense, the concept of intergroup threat should be applicable to the intergroup processes underlying consumers' willingness to purchase ingroup and outgroup products. However, in the social psychology literature, there is little research on intergroup relations attempting to relate intergroup threat to consumers' willingness to purchase ingroup and outgroup products as a form of intergroup behaviour. On the other hand, in the consumer behaviour literature, while considerable attention has been devoted to research on the intrapersonal and interpersonal processes of consumers' preference for purchasing domestic products over foreign alternatives (e.g., Diamantopoulos et al., 2019; Dimitriadou et al., 2019; Maier & Wilken, 2017), researchers have given less attention to the intergroup processes underlying this phenomenon.

The present project contributed to the interdisciplinary literature by bridging the research on intergroup relations and consumer behaviour. In four preregistered studies, we aimed to understand consumers' willingness to purchase ingroup and outgroup products when faced with threats from the outgroup. We also included knowledge of the country of origin (COO) as a potential moderator and discrete intergroup emotions as possible mediators of the relationship between intergroup threat and willingness to purchase ingroup/outgroup products.

1.1 | Ingroup bias and willingness to purchase

A plausible reason for the lack of research on the role of intergroup threat is that the body of literature on willingness to purchase has long been detached from the social identity framework. Classic intergroup relations research based on social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner et al., 1987) highlights the ingroup identity of "us" and its role in shaping *ingroup bias*, which is defined as "the tendency to over-evaluate or favor one's own group (the ingroup) and/or to under-evaluate or derogate a group to which one does not belong (the outgroup)" (Scheepers et al., 2006, p. 359). Although a large body of literature recognizes this bias, few scholarly efforts have related it to consumer behaviour. In fact, the psychological tendency to over-evaluate or favour the ingroup will not automatically and necessarily transfer to a specific pattern of consumers' purchasing behaviour (Benstead & Reif, 2017). Instead, it will be conditioned by distinctive contextual and individual factors in the consumer behaviour context, such as stereotypes of the country brand (Diamantopoulos et al., 2011; Koschate-Fischer et al., 2012), social norms regarding purchasing (Bonfield, 1974), value consciousness (Zhan & He, 2012), need for uniqueness (Zhan & He, 2012), etc. These factors together make it hard to predict how ingroup bias can be found in consumers' willingness to purchase based on the existing work on ingroup bias. In this sense, one should acknowledge that consumer behaviour is a highly contex-dependent phenomenon and the current theories from intergroup relations may therefore lack the potency to explain it fully.

In addition to the contextual dependency, consumer behaviour is a sophisticated concept to the extent that it implicates various attitudes and behaviours related to consumption as discussed in the consumer psychology literature. This complexity makes it necessary and theoretically significant to scrutinize whether and under what conditions consumers' ingroup bias can be reflected in changes in consumer behaviour. In fact, willingness to purchase is merely a basic form of consumer behaviour, and by examining it, we aim to point out the possibility that the social identity framework can also be applied to other distinct forms of consumer behaviour, such as product evaluation, consumer loyalty, willingness to recommend, collective action to boycott, engagement in customer citizenship activities, etc. (Chaudhry et al., 2021; Han & Nam, 2020; Josiassen et al., 2011; Verlegh, 2007). In doing so, we are able to take the first step to bridge the gap between intergroup literature and broader consumer behaviour literature. Empirically, further work is required to apply established theories regarding intergroup threat from intergroup relations research into the new field of study and see how these theories are supported or not supported.

1.2 | Intergroup threat and willingness to purchase ingroup and outgroup products

Integrated threat theory, proposed by Stephan and colleagues, attempted to classify perceived intergroup threat into four types: realistic threat, symbolic threat, intergroup anxiety and negative stereotypes (Stephan & Stephan, 1996; Stephan et al., 1999; Stephan et al., 1998). Later, Stephan and colleagues conceptually reduced the four types of intergroup threat to two essential components, namely, realistic threat and symbolic threat (Stephan et al., 2005, 2009). Realistic threat was originally a part of realistic conflict theory (Jackson, 1993), which describes it as ingroup members' concerns about the loss of tangible resources due to the presence of an outgroup. In contrast, symbolic threat involves the perception that intangible worldview and identity of the ingroup are challenged by an outgroup (Hainmueller & Hopkins, 2014). Considerable empirical studies following the integrated threat approach reveal that ingroup bias is a major consequence of realistic and symbolic threats (e.g., Cea D'Ancona, 2018; Croucher, 2013; Moss et al., 2019).

According to integrated threat theory, we propose that realistic and symbolic threats influence consumers' willingness to buy ingroup and outgroup products. Our reasoning is primarily based on the findings that intergroup threat leads to ingroup bias. Together, these findings

suggest that ingroup members become more positive towards the ingroup and more negative towards the outgroup when facing threat from the outgroup (Stephan et al., 2009). We contend that these tendencies can be outwardly expressed by consumers' preferences for domestic products over foreign alternatives. When faced with outgroup threat, consumers' identification with "ours" (i.e., ingroup products) versus "theirs" (i.e., outgroup products) becomes salient in a context of intergroup product purchasing (see Gineikiene et al., 2017; see also Verkuyten & Martinovic, 2017). This identification process will strongly motivate consumers' preference for ingroup products over those outgroup alternatives (Tajfel & Turner, 1979; Turner et al., 1987). Hence, we could predict consumers to be more willing to purchase ingroup products (and meanwhile less willing to purchase outgroup products) when facing threats from the outgroup.

Evidence supporting our argument can also be found in the literature on consumer behaviour and cross-cultural marketing. Research has shown that perceived economic threat posed by foreign competitors is associated with ethnocentric consumption (Kumar et al., 2011; Sharma et al., 1995). Ethnocentric consumers, on the one hand, tend to reject foreign products as they consider buyers of foreign products accountable for difficulties faced by domestic industry and for unemployment among domestic workers due to foreign competition (Shankarmahesh, 2006). On the other hand, they hope to help the domestic economy by purchasing domestic products (Olsen et al., 1993). In addition to economic threat, cultural distance has also been found to decrease consumers' willingness to purchase the products of an outgroup country (Ma et al., 2012; Tsuchiya et al., 2022; Vendrell-Herrero et al., 2018). As symbolic threat is primarily based on cultural differences between two groups (Stephan et al., 2009), if a larger cultural distance leads to greater symbolic threat perceptions and thus decreases consumers' willingness to purchase the products of the outgroup country. Accordingly, we propose that both realistic and symbolic threats could increase consumers' willingness to purchase ingroup products and meanwhile reduce their willingness to purchase outgroup products, as stated in the following hypotheses:

Hypothesis 1a. *Realistic and symbolic threats will increase consumers' willingness to purchase ingroup products.*

Hypothesis 1b. *Realistic and symbolic threats will decrease consumers' willingness to purchase outgroup products.*

1.3 | The interplay between intergroup threat and knowledge of the outgroup on willingness to purchase outgroup products

Knowledge of the outgroup is a particularly relevant individual-difference variable in the current research, as it is closely related to intergroup contact, which usually serves as a basis for interventions aiming to reduce the (bad) consequences of intergroup threat (Pettigrew, 2008). According to the contact hypothesis (Allport, 1954), properly managed intergroup contact can effectively reduce negativity towards the outgroup while shaping positive intergroup interactions (Aberson, 2015; Brown et al., 2007; Hayward et al., 2017; Pettigrew, 1997). One of the psychological processes underlying the effect of intergroup contact, as Allport (1954) explained, is that contact with outgroup members facilitates ingroup members' knowledge of the outgroup and thus decreases ingroup bias, stereotypes, and prejudice towards the outgroup. Indeed, empirical evidence suggests that a better knowledge of the outgroup is a predictor of lower prejudice (Mansouri & Vergani, 2018; Pettigrew & Tropp, 2008), supporting Stephan and Stephan's (1984) conclusion that "ignorance promotes prejudice" (p. 238). Moreover, according to Stephan et al. (2009), people who have a better knowledge of the outgroup have a lower psychological tendency to perceive the outgroup as a threat, thereby being less susceptible to the threat cues from the outgroup. Based on this rationale, we expect that willingness to purchase ingroup and outgroup products of consumers who know the outgroup better should be less susceptible to intergroup threat, leading to the following hypothesis.

Hypothesis 2. *Knowledge of the outgroup moderates the effect of intergroup threat on willingness to purchase outgroup products. To be specific, realistic and symbolic threats will reduce consumers' willingness to purchase outgroup products only among those who have relatively less knowledge of the outgroup.*

This prediction also resonates with research on how knowledge of the COO predicts consumers' willingness to purchase in the field of consumer behaviour, which has recognized that a better and positive knowledge of a foreign country predicts stronger intentions to purchase brands from that country (e.g., Darling & Kraft, 1977; Diamantopoulos et al., 2011). In fact, the COO's effect on willingness to purchase, which has been extensively examined in the consumer behaviour literature, is driven by knowledge of the COO, such as familiarity, stereotype, and perceived image of the country (Pharr, 2005). In a broader sense, knowledge of the COO is a dimension of product knowledge because the COO label can be treated as an extrinsic attribute of a product (Schaefer, 1997; Symmank, 2019). Hence, our research on knowledge of the outgroup also relates to the larger body of literature on the influence of product knowledge on purchase intentions (e.g., Cilingir & Basfirinci, 2014; Koschate-Fischer et al., 2012; Wang et al., 2020; Xin & Seo, 2020). Nonetheless, in the consumer behaviour literature, little has been known about how this knowledge of the COO and intergroup threat from the COO interact in affecting consumers' willingness to purchase.

1.4 | The mediating role of intergroup emotions

Although we have hypothesized the effect of intergroup threat and the potential moderating role of knowledge of the outgroup, the psychological mechanisms involved in these effects remain untested. To further look into the mechanism, we measured intergroup emotions as potential mediators of the relationship between intergroup threat and willingness to purchase ingroup/outgroup products.

On the one hand, following the approach of integrated threat theory (Stephan & Stephan, 1996), established evidence from intergroup relations research suggests that intergroup threat not only increases negative emotions towards the outgroup, such as anger (Kamans et al., 2011; Pauketat et al., 2020), fear (Kamans et al., 2011), hatred (Stephan et al., 2009), disgust (Pauketat et al., 2020; Ritter & Preston, 2011), and anxiety (Halperin et al., 2013; Wohl & Branscombe, 2009), but it also decreases positive emotions, such as hope (Stephan et al., 2009).

On the other hand, intergroup emotions theory (Mackie et al., 2000; Mackie et al., 2009) provides a framework for understanding how these emotional responses can further influence action tendencies towards the outgroup. Intergroup emotions theory raises its key argument that people experience the emotions when thinking themselves as members of one group rather than another group (Mackie et al., 2000, 2009). For example, as domestic consumers identify themselves as ingroup members of their own country and distinguish themselves from outgroup members of another country (i.e., self-categorization and identification processes), they will experience emotions towards a foreign country based on their distinct national identity as well as the normative processes that their national identity entails (Mackie & Smith, 2017; Mackie & Smith, 2018). Drawing on the intergroup emotions framework, researchers have made efforts to investigate the emotional processes underlying consumers' intergroup purchasing behaviour (e.g., Oyedele & Hernandez, 2017), although the roles of most discrete emotions remain unclear. Hence, in the current research, we examined how discrete emotions, including anger, fear, hatred, disgust, anxiety, and hope play their part in influencing the effect of intergroup threat on consumers' intergroup purchasing behaviour.

Anger and fear are a classic pair of emotions examined in the approach-avoidance model (Carver & Harmon-Jones, 2009). Anger predicts negative-hostile approach behaviours, such as attack, violence, and confrontation (Kenworthy et al., 2016). In contrast, fear is often related to avoidance movements—under circumstances of extreme outgroup threat, fear can even lead people to flee from their land to avoid confronting the outgroup (Pliskin et al., 2015). Either actively boycotting or passively avoiding could reduce outgroup product purchases. Evidence also suggests that both anger and fear can facilitate ingroup affiliation, which fosters ingroup favouritism (Kessler & Hollbach, 2005; Spanovic et al., 2010). Both emotions should therefore also be related to action tendencies to promote the ingroup, for example, increased ingroup product purchases. These arguments lead to the following hypotheses:

Hypothesis 3a. *Realistic and symbolic threats will increase anger towards the outgroup, thus increasing willingness to purchase ingroup products while decreasing willingness to purchase outgroup products.*

Hypothesis 3b. *Realistic and symbolic threats will increase fear of the outgroup, thus increasing willingness to purchase ingroup products while decreasing willingness to purchase outgroup products.*

Although anger has long been assumed to be the most powerful emotional determinant of intergroup aggression, recent research suggests that hatred, which usually emerges in prolonged intergroup conflicts, can be an even stronger predictor of aggressive actions against the outgroup (Halperin, 2011; Halperin et al., 2009). As compared to anger, which is usually short-term and triggered by an explosive event, hatred, as a long-term and extremely negative emotion, is more arousing and intense and more strongly drives attack-oriented behaviours (Martínez et al., 2022). In fact, research has shown that hatred is conceptually closer to disgust than to anger, as disgust is also a stable and long-lasting emotion (Martínez et al., 2022). Although disgust is usually considered to elicit avoidance reactions according to research on pathogen threat from evolutionary psychology (e.g., Dawydiak et al., 2020), it also predicts active harm to an outgroup, most typically by means of stigmatizing and discriminating against its members (Hodson, et al., 2013; Martínez et al., 2022). We therefore predict both hatred and disgust to mediate the effects of outgroup threats on willingness to purchase ingroup and outgroup products as follows:

Hypothesis 3c. *Realistic and symbolic threats will increase hatred of the outgroup, thus increasing willingness to purchase ingroup products while decreasing willingness to purchase outgroup products.*

Hypothesis 3d. *Realistic and symbolic threats will increase disgust of the outgroup, thus increasing willingness to purchase ingroup products while decreasing willingness to purchase outgroup products.*

Emotions related to the anticipation of future, anxiety and hope, in an intergroup context, describe the anticipation of negative and desired outcomes from intergroup interactions, respectively (Cohen-Chen et al., 2017; Stephan et al., 2009). Anxiety not only encourages ingroup forgiveness of harmful actions against the outgroup but also predicts a desire to strengthen their ingroup (Wohl & Branscombe, 2009; Wohl et al., 2010). Accordingly, we would expect an increased anxiety resulting from intergroup threat to not only reduce consumers' willingness to purchase outgroup products but also increase their intentions to purchase ingroup alternatives. By contrast, hope (for better intergroup relations) is recognized as a key emotion in conflict resolution, guiding goal-directed behaviour to seek reconciliation (Čehajić-Clancy et al., 2016; Cohen-Chen et al., 2017). Evidence suggests that experiencing hope promotes conciliatory attitudes and willingness to offer the outgroup humanitarian aid while undermining collective action against the outgroup (Halperin & Gross, 2011; Hasan-Aslih et al., 2019; Rosler et al., 2017). However, little evidence points to the role of hope (for better intergroup relations) in motivation for ingroup promotion. Therefore, we could expect intergroup threat to decrease hope, thus reducing consumers' willingness to purchase outgroup products, as hypothesized below:

Hypothesis 3e. *Realistic and symbolic threats will increase anxiety about the outgroup, thus increasing willingness to purchase ingroup products while decreasing willingness to purchase outgroup products.*

Hypothesis 3f. *Realistic and symbolic threats will decrease hope for better relations with the outgroup, thus decreasing willingness to purchase outgroup products.*

1.5 | Overview of the present research

In the present research, we aimed to provide empirical evidence regarding the ways in which different types of intergroup threat can influence consumer's willingness to purchase ingroup and outgroup products. We raised our basic prediction that the presence of threat from the outgroup will reduce consumer's willingness to purchase outgroup products but will increase their willingness to purchase ingroup products. We also predicted knowledge of the outgroup to be a potential moderator and intergroup emotions to be possible mediators of this effect. To test these hypotheses, we conducted four preregistered experimental studies in China. We chose China as the context of study because globalization has changed Chinese consumers' attitudes towards domestic and foreign products a lot (Li, 2018). However, drawing on the Western samples that dominated intergroup relations and consumer behaviour research, social and consumer psychologists were not able to address the issues brought by such changes in contemporary China. To be concrete, before the 1980s in China, there were few products imported from the Western world, and people were even not allowed to purchase freely due to the communist policies, hence the notion of foreign product consumption was not shaped among Chinese people until China's economic reform and its active participation in globalization. As an emerging market, China has seen a large influx of foreign brands in the past 20 years, which was accompanied by a trend to value Western products due to their high quality. However, the situation changed again in recent years because consumer nationalism started to prevail nationwide, to some extent as a reaction to the Western threat (Liu et al., 2017; Wang, 2020). For instance, the recent allegation of forced labour against Xinjiang cotton industry from Western critics resulted in Chinese consumers' collective boycott against Western clothing brands including H&M, Nike, Zara, etc., and the Canadian detention of Meng Wanzhou, the board deputy chair of Huawei, started a nationwide fashion for purchasing domestic products. These cases were the immediate flashpoints, but underlying them were changed national sentiments of Chinese consumers. Such rapid changes warrant scholarly efforts to test and improve the theories regarding intergroup threat and intergroup consumer behaviour and to shed light on possible interventions in the specific Chinese context.

In China currently, Western countries are usually portrayed by Chinese media as a major threat in terms of economic competition, differences in values, and attempts to expand their influence in Asia. This made our manipulation of intergroup threat credible. Across four studies, we operationalized intergroup threat in terms of realistic threat and symbolic threat from Western countries. We also adopted different operationalizations for Chinese consumers' willingness to purchase Chinese (ingroup) products and willingness to purchase Western (outgroup) products as the dependent measures. In Studies 1 and 2, we measured these dependent variables in terms of the "made-in" origin (Piron, 2000) and the brand origin (Prendergast et al., 2010), respectively, and in Study 2 we controlled for the within-participants effect of product category. In Studies 3a and 3b, as previous research suggests that the bias in favouring ingroup products can be found on products with different "made-in" origins (Piron, 2000) but also on products marked by different cultural symbols (Pandya & Venkatesan, 2016), we measured willingness to purchase Chinese and Western products in terms of both place of production and product style. We also measured knowledge of the Western world as a possible moderator in Studies 3a and 3b. We measured negative and positive intergroup emotions in Study 3b to examine whether they could mediate the hypothesized relationship between intergroup threat and willingness to purchase.

The four studies were preregistered on the Open Science Framework (OSF). All relevant materials and raw data can be found at https://osf.io/tdn57.

2 | STUDY 1

In Study 1, we operationalized willingness to purchase ingroup/outgroup products in terms of the "made-in" origin, that is, products made in China/Western countries. The current study aimed to provide initial support for Hypotheses 1a and 1b—we expected participants in both realistic threat and symbolic threat conditions (compared to the control condition) to report greater willingness to purchase products made in China and lower willingness to purchase products made in Western countries.

This study was preregistered on the OSF at https://osf.io/zugvw.

2.1 | Method

2.1.1 | Participants

We recruited 223 participants from Tencent Questionnaire (www.wj.qq.com). The panel was based on the users of Tencent's social media platform, namely, WeChat. After we submitted the request for data collection, Tencent Questionnaire helped advertise our questionnaire on WeChat and participants were able to access it by clicking the link in the advertisement. Two participants were excluded from our analyses because they were underage and 27 others were excluded for failing the reading check presented just after the manipulation information. The final sample ($N = 194$) consisted of 106 females and 88 males with a mean age of 24.96 years (18–65, $SD = 6.36$). A sensitivity power analysis using G*Power 3.1.9.7(Faul et al., 2009) indicated that this sample size provided a power of 0.90 (as we preregistered) to detect an effect size of $f = 0.26$ or greater for the effect of intergroup threat.

2.1.2 | Procedure and materials

After giving informed consent, participants read a piece of real or ostensible "news excerpt" based on the random assignment to one of three conditions in a between-participants design (intergroup threat: realistic versus symbolic versus control), followed by items measuring our research variables. Unless otherwise specified, the responses across Studies 1 to 3b were coded on seven-point scales with endpoints 1(Strongly disagree/Not at all) and 7(Strongly agree/Very much).

At the end of the questionnaire, participants were carefully debriefed that the fictious "news excerpt" only aimed to manipulate intergroup threat. In order to mitigate the possible influence of outgroup threat beyond the experiment, participants were also informed about the importance of positive intergroup relations between China and the Western world and were encouraged to think about the positive contact between China and Western countries.

Manipulation and measures

Intergroup threat. Intergroup threat was manipulated using a two-paragraph text "published in a domestic newspaper". In the realistic threat condition, participants read a piece of "news excerpt" describing how US trade protectionism and the Western sanctions on Chinese multinational companies were threatening China's domestic industry and international trade. In the symbolic threat condition, participants were presented with a "news excerpt" introducing the Chinese culture of pottery and how such traditional culture was being replaced by Western aesthetics. In the control condition, participants read a real excerpt adapted from a published news reporting how the Trans-Eurasia Logistics connected Changsha and Europe. Below the text presented, participants completed a reading check (i.e., "Please use about 10 words to briefly describe what the above reading material is about") and two manipulation checks (i.e., perceived realistic threat: "In your view, how much threat is the Western world posing to the Chinese economy, for example, economic growth, international trade and job opportunities"; and perceived symbolic threat: "In your view, how much threat is the Western world posing on Chinese culture, for example, values, social norms and moral principles?").

Willingness to purchase products made in China and Willingness to purchase products made in Western Countries. Participants were then asked to indicate to what extent they agreed or disagreed with two statements: "I am willing to buy products made in China" and "I am willing to buy products made in Western countries".

2.2 | Results

2.2.1 | Reading and manipulation checks

First, we asked two research assistants who were undergraduate students at Shanghai International Studies University to evaluate the responses to the reading check. Twenty-seven responses (underage responses were not counted) were considered to be inconsistent with the manipulation information by both research assistants.

Then, a one-way ANOVA was performed to test whether the manipulation affected perceived realistic threat. The results revealed a significant effect of intergroup threat, $F(2, 191) = 5.60$, $p = .004$, $\eta_p^2 = .06$. Consistent with the experimental induction, the pairwise comparisons showed that perceived realistic threat was greater in the realistic threat condition ($M = 5.04$, $SD = 1.30$) than in the control condition ($M = 4.27$, $SD = 1.53$), $t(191) = 3.20$, $p = .002$, $d = 0.54$. However, perceived realistic threat was also greater in the symbolic threat condition ($M = 4.87$, $SD = 1.32$) than the control condition, $t(191) = 2.42$, $p = .017$, $d = 0.42$. The difference in perceived realistic threat between the realistic threat and symbolic threat conditions was not significant, $t(191) = 0.72$, $p = .475$, $d = 0.13$. The results suggest that the symbolic threat condition unexpectedly induced perceived realistic threat.

Another one-way ANOVA followed to test whether the manipulation affected perceived symbolic threat. The results revealed a significant effect of intergroup threat, $F(2, 191) = 4.13$, $p = .017$, $\eta_p^2 = .04$. Consistent with the experimental induction, the pairwise comparisons showed that perceived symbolic threat was greater in the symbolic threat condition ($M = 5.07$, $SD = 1.41$) than in the control condition ($M = 4.42$, $SD = 1.68$), $t(191) = 2.31$, $p = .022$, $d = 0.41$, and also than in the realistic threat condition ($M = 4.33$, $SD = 1.57$), $t(191) = 2.67$, $p = .008$, $d = 0.49$. Meanwhile, the difference in perceived symbolic threat between the realistic threat and control conditions was not significant, $t(191) = 0.35$, $p = .724$, $d = 0.06$.

2.2.2 | Main analyses

Dependent variables were analysed using one-way ANOVA in order to examine the effect of the intergroup threat manipulation.

Willingness to purchase products made in China

No significant effect of intergroup threat was found, $F(2, 191) = 0.84$, $p = .436$, $\eta_p^2 = .01$.

Willingness to purchase products made in Western Countries

The ANOVA revealed a significant effect of intergroup threat, $F(2, 191) = 6.05$, $p = .003$, $\eta_p^2 = .06$. The pairwise comparisons showed that willingness to purchase products made in Western countries was reduced when the realistic threat was present ($M = 3.54$, $SD = 1.39$) in comparison with the control condition ($M = 4.32$, $SD = 1.24$), $t(191) = 3.31$, $p = .001$, $d = 0.59$. However, the difference in willingness to purchase products made in Western countries was not significant between participants in the symbolic threat condition ($M = 4.15$, $SD = 1.45$) and those in the control condition, $t(191) = 0.71$, $p = .480$, $d = 0.13$.

2.2.3 | Additional analyses

As the manipulation check suggested that the symbolic threat condition induced perceptions of both realistic and symbolic threats, we ran the ANOVA again controlling for perceived realistic threat. Similar effects of intergroup threat were found on the two dependent measures of willingness to purchase. Again, no significant effect of intergroup threat was found on willingness to purchase products made in China, $F(2, 190) = 0.78$, $p = .459$, $\eta_p^2 = .01$. Consistent with the results without controlling for perceived realistic threat, the effect of intergroup threat on willingness to purchase products made in Western countries was still significant, $F(2, 190) = 7.72$, $p < .001$, $\eta_p^2 = .06$,

and only realistic threat (rather than symbolic threat) reduced this willingness in comparison with the control condition, $t(190) = 3.81$, $p < .001$, $d = 0.67$.

2.3 | Discussion

The results of Study 1 only partially supported Hypothesis 1b, that realistic threat as compared to the control condition should decrease willingness to purchase outgroup products. However, ingroup favouritism of domestic products (Hypothesis 1a) was not influenced by intergroup threat, because both realistic and symbolic threats, as compared to the control condition, demonstrated no significant effect on willingness to purchase products made in China.

We note a major drawback of the current study that the manipulation of symbolic threat induced both perceived realistic threat and perceived symbolic threat. Although the statistical tests controlling for perceived realistic threat yielded findings similar to those without controlling, we need to improve the manipulation in subsequent studies. There may be two possible reasons why symbolic threat increased perceptions of both realistic and symbolic threats. First, in the manipulation material for symbolic threat, we mentioned the traditional Chinese culture of pottery and how it was being replaced by Western aesthetics. As pottery can be regarded as either a cultural symbol or an economic good, the manipulation is able not only to induce participants' perception of symbolic threat but can also elicit their perception of economic competition between China and Western countries. Moreover, we doubt whether the scores for perceived realistic threat in the control condition were really the intended baseline, in the sense that the introduction to the Trans-Eurasia Logistics implied positive economic exchange between China and Western countries and thus lowered the "default" scores for perceived realistic threat in the control condition. Even though the symbolic threat condition did not really induce realistic threat, higher scores on perceived realistic threat can therefore be observed as relative to the control condition. In our next studies, improvements would focus on the symbolic threat and control conditions.

3 | STUDY 2

In Study 1, we operationalized our dependent variables as a general willingness to purchase products made in China and made in Western countries rather than specifying willingness to purchase Chinese and Western products from distinct product categories (e.g., toothpaste, eyeglasses, etc.). However, this can be criticized because intergroup threat might have different influences on willingness to purchase products of different categories. For example, as jewellery can be easily substituted by Chinese domestic alternatives while fragrance cannot, it is possible that Chinese consumers could be influenced by intergroup threat only when they decide to purchase jewellery rather than fragrance products considering the high cost of purchasing a non-substitutable product of the domestic brand (Klein et al., 2004). In the current study, we measured willingness to purchase Chinese and Western products towards eight distinct product categories selected from a pilot study (see the supplementary materials) and controlled for the within-participants effect of product category. We also adopted another operationalization for COO, that is, brand origin, and thus measured willingness to purchase products of Chinese and Western brands towards these distinct product categories. With this different operationalization, we expected to replicate the findings from Study 1 and increase the robustness of our results.

In Study 2, we also aimed to improve Study 1 by developing a new manipulation designed to induce intergroup threats. In Study 1, the symbolic threat manipulation increased both perceived realistic threat and perceived symbolic threat as compared to the control condition. We therefore replaced the manipulation material for the symbolic threat condition and slightly adjusted the manipulation material for inducing realistic threat. For comparison, we again included a control condition aiming at gauging participants' baseline scores for the dependent measures. As we considered that the manipulation text for the control condition in Study 1 implied positive intergroup contact between China and Western countries in realistic aspects thereby lowering the baseline scores for perceived realistic threat, we replaced it with a more "neutral" one.

This study was preregistered on the OSF at https://osf.io/k8527 (first-wave data collection) and https://osf.io/rg6wv (second-wave data collection).

3.1 | Method

3.1.1 | Participants

Three hundred and forty-four participants submitted responses through WJX (www.wjx.cn), the largest panel company in China, which claims that it holds a panel of more than 2.6 million participants with heterogeneous backgrounds—most are males (52%), non-managerial employees (39.20%), aged between 21 and 30 (54.37%), and from Guangdong province (14.81%). Their platform is well established and has been used by various Chinese and international research institutions (e.g., Peking University, Seoul National University, the London School of Economics, etc.) and companies (e.g., TCL, Walmart, Starbucks, etc.).

After excluding 49 participants who failed at least one attention check embedded in the questionnaire and 17 others who failed the reading check, 278 valid cases (95 females; ages 18–67 years, $M = 32.08$, $SD = 8.57$) were included in the data analysis. A sensitivity power analysis using G*Power 3.1.9.7 (Faul et al., 2009) indicated that this sample size provided a power of 0.95 (as we preregistered) to detect a minimum effect size of $f = 0.18$ in a repeated-measures ANOVA with three between-participants conditions and eight within-participants measurements.

3.1.2 Procedure and materials

The procedure was almost similar to that in Study 1, although the research design and materials presented to participants were different. In the present study, participants were randomly assigned to one of three conditions in a between-participants design (intergroup threat: realistic versus symbolic versus control). Either willingness to purchase Chinese brands or willingness to purchase Western brands was measured within participants in terms of different product categories (i.e., toothpaste, eyeglasses, jewellery, hoverboard, drug, baby milk, watch, and fragrance).

Intergroup threat. Intergroup threat was manipulated using a single-paragraph text that was said to be "published in a domestic newspaper". In the realistic threat condition, participants read a manipulation text similar to that used in Study 1, but the information presented was said to be based on the results from the "Global Protectionism Report". In the symbolic threat condition, participants read the fictious results from the "Eastern and Western Values Report", and the results were explained by indicating that traditional Chinese culture was being replaced by Western mainstream values. In the control condition, participants read a real excerpt adapted from a published magazine article about how camping became popular. Below the manipulation text, the same reading and manipulation checks that were used in Study 1 were presented.

Willingness to purchase Chinese brands. The within-participants design was embedded in the measure of willingness to purchase Chinese brands. Participants indicated the extent to which they were willing to choose a Chinese brand when deciding to purchasing a product from the following categories: toothpaste, eyeglasses, jewellery, hoverboard, drug, baby milk, watch, and fragrance.

Willingness to purchase Western brands. Likewise, we asked the extent to which participants were willing to choose a Western brand when deciding to purchasing a product from the eight above-mentioned product categories.

3.2 | Results

3.2.1 | Reading and manipulation checks

Again, we asked two research assistants from Shanghai International Studies University to evaluate the responses to the reading check. Seventeen responses were decided as inconsistent with the manipulation information by both research assistants.

A one-way ANOVA revealed a significant effect of intergroup threat on perceived realistic threat, $F(2, 275) = 9.88$, $p < .001$, $\eta_p^2 = .07$. Consistent with the experimental induction, the pairwise comparisons showed that perceived realistic threat was greater in the realistic threat condition ($M = 5.63$, $SD = 1.03$) than in the control condition ($M = 4.94$, $SD = 1.21$), $t(275) = 4.21$, $p < .001$, $d = 0.62$, and also than in the symbolic threat condition ($M = 5.08$, $SD = 1.14$), $t(275) = 3.33$, $p < .001$, $d = 0.51$. The difference in the perceived realistic threat between the symbolic threat and control conditions was not significant, $t(275) = 0.85$, $p = .395$, $d = 0.12$.

Another one-way ANOVA revealed a significant effect of intergroup threat on perceived symbolic threat, $F(2, 275) = 7.02$, $p = .001$, $\eta_p^2 = .05$. Consistent with the experimental induction, the pairwise comparisons showed that perceived symbolic threat was greater in the symbolic threat condition ($M = 5.49$, $SD = 1.35$) than in the control condition ($M = 4.78$, $SD = 1.52$), $t(275) = 3.35$, $p < .001$, $d = 0.50$, and also than in the realistic threat condition ($M = 4.83$, $SD = 1.44$), $t(275) = 3.15$, $p = .002$, $d = 0.48$. Moreover, the difference in perceived symbolic threat between the realistic threat and control conditions was not significant, $t(275) = 0.21$, $p = .831$, $d = 0.03$.

3.2.2 | Willingness to purchase Chinese brands

A 3 (between-participants intergroup threat: realistic versus symbolic versus control) × 8 (within-participants product category) repeated-measures ANOVA on willingness to purchase Chinese brands revealed no significant between-participants effect of intergroup threat, $F(2, 275) = 1.89$, $p = .153$, $\eta_p^2 = .01$, but a significant within-participants effect of product category, $F(7, 1{,}925) = 42.84$, $p < .001$, $\eta_p^2 = .14$; their interactive effect was also found to be non-significant, $F(14, 1{,}925) = 0.69$, $p = .790$, $\eta_p^2 = .01$.

3.2.3 | Willingness to purchase Western brands

A 3 (between-participants intergroup threat: realistic versus symbolic versus control) × 8 (within-participants product category) repeated-measures ANOVA on willingness to purchase Western brands revealed a significant between-participants effect of intergroup threat, $F(2, 275) = 13.56$, $p < .001$, $\eta_p^2 = .09$, and a significant within-participants effect of product category, $F(7, 1{,}925) = 47.86$, $p < .001$, $\eta_p^2 = .15$; but their interactive effect was non-significant, $F(14, 1{,}925) = 1.05$, $p = .403$, $\eta_p^2 = .01$. Post hoc comparisons of the between-participants effect showed that willingness to purchase Western brands was lower in the realistic threat condition ($M = 3.41$) than in the control condition ($M = 4.41$), $t(275) = 5.15$, $p < .001$, $d = 0.31$, and also than in the symbolic threat condition ($M = 4.04$), $t(275) = 3.22$, $p = .001$, $d = 0.19$. However, the difference in willingness to purchase Western brands between the symbolic threat and control conditions was non-significant, $t(275) = 1.90$, $p = .059$, $d = 0.11$.

3.3 | Discussion

The findings of Study 2 replicated those of Study 1 and again provided partial support for Hypothesis 1b, in the sense that only realistic threat, as compared to the control condition, decreased consumers'

willingness to purchase Western brands, even after controlling for the within-participants effect of product category. On the other hand, we failed to find evidence supporting Hypothesis 1a, as both types of threats did not show significant effects on willingness to purchase Chinese brands. One possible explanation for the non-significant effect of symbolic threat is that it could only affect consumers' motivation to purchase products with a clear cultural mark. However, the labels of "made-in" origin and brand origin attached to a product implied economic rather than cultural cues, as these labels reminded consumers of to whom they would pay the money instead of the cultural origin or heritage of a product (Lim & O'Cass, 2001). As a result, willingness to purchase products made in different countries and of different brand origins was not so much culturally driven as economically driven. In order to find evidence for this argument, we operationalized willingness to purchase regarding products of different "made-in" origins (i.e., *made in* China or Western countries) and cultural origins (i.e., of Chinese or Western *style*) in subsequent Studies 3a and 3b.

The current study improved Study 1 mainly regarding manipulating intergroup threats and operationalizing willingness to purchase ingroup and outgroup products. According to the manipulation checks, the new approach of manipulation was successful. In addition, we measured willingness to purchase ingroup and outgroup products of eight different product categories. By controlling for the within-participants effect of product category, we increased the robustness of our findings. However, there is still room to expand the current study. First, it is worthwhile to investigate moderators that are able to alleviate the influence of intergroup threat on consumer' purchase behaviour, thus providing insights regarding possible interventions. For example, according to the contact hypothesis (Allport, 1954), we proposed that better knowledge of the Western world might undermine Chinse consumers' ingroup bias and increase their willingness to purchase Western products. Second, the psychological mechanisms underlying the relationships tested in the current study remain unknown. According to intergroup emotions theory (Mackie et al., 2000, 2009), we predicted intergroup emotions to mediate the relationship between intergroup threat and the dependent measures of willingness to purchase. Hence in the next studies, we aimed to replicate and extend the current experiment by investigating the potential moderating role of knowledge of the Western world in more depth as well as the possible emotional mechanism of intergroup threat.

4 | STUDIES 3A AND 3B

The purpose of Studies 3a and 3b was to replicate and extend the findings of Studies 1 and 2 by introducing knowledge of the Western world as a potential moderator (both studies) and intergroup emotions as possible mediators (Study 3b) of the relationship between intergroup threat and willingness to purchase Chinese and Western products. In addition to Hypotheses 1a and 1b tested in Studies 1 and 2, we also predicted intergroup threat to be less influential to willingness to purchase Western products among Chinese consumers with relatively more knowledge of the Western world (Hypothesis 2). We also examined the potential mediating roles of different types of intergroup emotions, as predicted by Hypotheses 3a to 3f.

In contrast to Study 2, we did not measure willingness to purchase with respect to different product categories in the present studies. Instead, we adopted a two-item measure for willingness to purchase in terms of the "made-in" origin (i.e., made in China or Western countries) and cultural origin (i.e., of Chinese or Western *style*) of a product. In addition to the "made-in" origin that has been extensively examined in the literature, the cultural origin of a product is also found to be an important predictor of consumers' purchase intentions (Lim & O'Cass, 2001; Pandya & Venkatesan, 2016; Zhou & Hui, 2003). Regardless of the actual country of manufacturing, the cultural origin can be perceived from the symbolic cues like product style, brand name, or advertising image with a distinct indication of culture. For example, Chinese consumers can regard potato chips as a foreign product as it is food from the Western culture, even if most potato chips sold in China are produced by domestic factories.

Both studies were preregistered on the OSF at https://osf.io/kxcnp (Study 3a) and https://osf.io/qsjrc (Study 3b).

4.1 | Method

4.1.1 | Participants

A total of 551 Chinese participants were recruited for the two studies (270 in Study 3a from Tencent Questionnaire; 281 in Study 3b from WJX). Thirteen of them were excluded because they were underage and 22 others were excluded for failing the reading check. The data collection yielded a final sample of 516 participants (Study 3a: $N = 251$, 160 females, ages 18–56 years, $M = 24.02$ years, $SD = 5.64$ years; Study 3b: $N = 265$, 174 females, ages 18–65 years, $M = 29.21$ years, $SD = 8.10$ years). Sensitivity power analyses using G*Power 3.1.9.7 (Faul et al., 2009) indicated that the sample sizes provided a power of 0.95 (as we preregistered) to detect effect sizes of $f = 0.25$ and $f = 0.24$ for Study 3a and Study 3b, respectively, in one-way ANOVAs with three groups.

4.1.2 | Procedure and materials

In the present studies, participants were again randomly assigned to one of three conditions in a between-participants design (intergroup threat: realistic versus symbolic versus control). After reading the manipulation information, participants were asked to answer a series of questions measuring willingness to purchase Chinese products, willingness to purchase Western products, knowledge of the Western world, and intergroup emotions (only in Study 3b).

4.1.3 | Manipulation and measures

Intergroup threat

The manipulation of intergroup threat and the reading and manipulation checks were identical to those used in Study 2.

Willingness to purchase Chinese products

Participants indicated the extent to which they were willing to purchase: (1) products *made in China*, and (2) *Chinese-style* products (Study 3a: $\alpha = .75$; Study 3b: $\alpha = .76$).

Willingness to purchase Western products

Likewise, participants indicated the extent to which they were willing to purchase: (1) products *made in Western countries*, and (2) *Western-style* products (Study 3a: $\alpha = .80$; Study 3b: $\alpha = .80$).

Knowledge of the Western world

Participants then completed a single-item question measuring knowledge of the Western world: "In your view, how much knowledge of the Western world do you have?"

Intergroup emotions

Discrete intergroup emotions were measured only in Study 3b. Participants indicated the extent to which they experienced each of the following emotions regarding their general feelings towards Western countries: anger, fear, hatred, disgust, anxiety and hope (for better relations with Western countries).

4.2 | Results

4.2.1 | Reading and manipulation checks

First, we asked two research assistants from Shanghai International Studies University to evaluate the responses to the reading check. Fourteen responses in Study 3a and eight responses in Study 3b were decided as inconsistent with the manipulation information by both research assistants.

A one-way ANOVA revealed a significant effect of intergroup threat on perceived realistic threat (Study 3a: $F(2, 248) = 3.78$, $p = .024$, $\eta_p^2 = .03$; Study 3b: $F(2, 262) = 11.43$, $p < .001$, $\eta_p^2 = .08$). Consistent with the experimental induction, in both studies, perceived realistic threat was greater in the realistic threat condition (Study 3a: $M = 5.24$, $SD = 1.22$; Study 3b: $M = 5.63$, $SD = 1.05$) than in the control condition (Study 3a: $M = 4.86$, $SD = 1.20$, $t(248) = 1.99$, $p = .048$, $d = 0.32$; Study 3b: $M = 4.96$, $SD = 1.09$, $t(262) = 3.98$, $p < .001$, $d = 0.62$) and the symbolic threat condition (Study 3a: $M = 4.77$, $SD = 1.28$, $t(248) = 2.57$, $p = .011$, $d = 0.38$; Study 3b: $M = 4.90$, $SD = 1.22$, $t(262) = 4.29$, $p < .001$, $d = 0.64$). The difference in perceived realistic threat between the symbolic threat and control conditions was not significant (Study 3a: $t(248) = 0.44$, $p = .658$, $d = 0.07$; Study 3b: $t(262) = 0.35$, $p = .727$, $d = 0.05$).

Likewise, another one-way ANOVA was performed to test whether the manipulation of intergroup threat affected perceived symbolic threat. The results showed a significant effect of intergroup threat (Study 3a: $F(2, 248) = 4.35$, $p = .014$, $\eta_p^2 = .03$; Study 3b: $F(2, 262) = 7.94$, $p < .001$, $\eta_p^2 = .06$). Consistent with the experimental induction, perceived symbolic threat was greater in the symbolic threat condition (Study 3a: $M = 5.07$, $SD = 1.43$; Study 3b: $M = 5.34$, $SD = 1.27$) than in the control condition (Study 3a: $M = 4.64$, $SD = 1.48$, $t(248) = 1.77$, $p = .078$, $d = 0.30$; Study 3b: $M = 4.53$, $SD = 1.38$, $t(262) = 3.92$, $p < .001$, $d = 0.61$), and also greater than in the realistic threat condition (Study 3a: $M = 4.42$, $SD = 1.58$, $t(248) = 2.93$, $p = .004$, $d = 0.44$; Study 3b: $M = 4.81$, $SD = 1.47$, $t(262) = 2.59$, $p = .010$, $d = 0.39$). The difference in perceived symbolic threat between the realistic threat and control conditions was not significant (Study 3a: $t(248) = 0.94$, $p = .346$, $d = 0.14$; Study 3b: $t(262) = 1.33$, $p = .186$, $d = 0.19$). However, it is worth noting that the symbolic threat (versus control) manipulation in Study 3a demonstrated a marginally significant effect on perceived symbolic threat. Since a meta-analysis for the manipulation checking (for more details see the next section, internal meta-analysis) suggested that manipulating symbolic threat had an overall significant effect on perceived symbolic threat, we would deem the manipulation of symbolic threat to be successful.

4.2.2 | The main effect of intergroup threat

Willingness to purchase Chinese products

A one-way ANOVA on willingness to purchase Chinese products revealed a significant effect of intergroup threat (Study 3a: $F(2, 248) = 7.77$, $p < .001$, $\eta_p^2 = .06$; Study 3b: $F(2, 262) = 5.80$, $p = .003$, $\eta_p^2 = .04$). Post hoc comparisons showed that, on the one hand, realistic threat (Study 3a: $M = 6.67$, $SD = 0.53$; Study 3b: $M = 6.45$, $SD = 0.61$), as compared with the control condition (Study 3a: $M = 6.21$, $SD = 0.89$; Study 3b: $M = 6.10$, $SD = 1.06$), increased willingness to purchase Chinese products (Study 3a: $t(248) = 3.82$, $p < .001$, $d = 0.66$; Study 3b: $t(262) = 3.00$, $p = .003$, $d = 0.41$). On the other hand, the difference in willingness to purchase Chinese products between symbolic threat (Study 3a: $M = 6.38$, $SD = 0.92$; Study 3b: $M = 6.44$, $SD = 0.60$) and the control condition was found to be significant in Study 3b, $t(262) = 2.89$, $p = .004$, $d = 0.40$, but not in Study 3a, $t(248) = 1.36$, $p = .176$, $d = 0.19$.

Willingness to purchase Western products

A one-way ANOVA on willingness to purchase Western products revealed a significant effect of intergroup threat (Study 3a: $F(2, 248) = 10.17$, $p < .001$, $\eta_p^2 = .08$; Study 3b: $F(2, 262) = 8.42$, $p = .001$, $\eta_p^2 = .05$). Post hoc comparisons showed that realistic threat (Study 3a: $M = 3.23$, $SD = 1.51$; Study 3b: $M = 3.64$, $SD = 1.21$), as compared to the control condition (Study 3a: $M = 4.18$, $SD = 1.16$; Study 3b: $M = 4.19$, $SD = 0.99$), decreased willingness to purchase Western products (Study 3a: $t(248) = 4.49$, $p < .001$, $d = 0.69$; Study 3b: $t(262) = 3.28$, $p < .001$, $d = 0.50$). Moreover, symbolic threat (Study 3a: $M = 3.69$, $SD = 1.32$; Study 3b: $M = 3.67$, $SD = 1.14$), as compared to the control condition, was also found to reduce willingness to purchase Western products (Study 3a: $t(248) = 2.20$, $p = .029$, $d = 0.39$; Study 3b: $t(262) = 3.09$, $p = .002$, $d = 0.49$).

4.2.3 | The moderating role of knowledge of the Western world

To test the moderating role of knowledge of the Western world on the relationships between intergroup threat and the dependent

variables (i.e., willingness to purchase Chinese products and willingness to purchase Western products), we performed moderation analyses using Hayes' (2013) PROCESS command in SPSS (Model 1). In each analysis, we entered intergroup threat as the independent variable, knowledge of the Western world as the moderator, and one of the willingness to purchase measures as the dependent variable. To dummy code the independent variable, we specified the control condition as the reference group, thus generating two contrasts: X1, comparing the realistic threat and control conditions, and X2, comparing the symbolic threat and control conditions. We report the results for the interaction term within each regression model in Table 1.

In Study 3a, realistic threat (versus control) interacted with knowledge of the Western world in affecting willingness to purchase Western products, $B = 0.46$, $SE = 0.18$, $t = 2.57$, $p = .011$, CI = [0.11, 0.82]. Decomposition of this interactive effect showed that realistic threat (versus control) reduced willingness to purchase Western products only among participants who had relatively less knowledge of the Western world ($B = -1.26$, $SE = 0.32$, $t = -3.93$, $p < .001$, CI = [−1.89, −0.63]), but not among those who knew the Western world better ($B = -0.09$, $SE = 0.29$, $t = -0.30$, $p = .761$, CI = [−0.66, 0.49]). However, the realistic threat (versus control) × knowledge and symbolic threat (versus control) × knowledge interactions did not significantly influence willingness to purchase Western products in Study 3b, and neither did they influence willingness to purchase Chinese products in both Studies 3a and 3b.

4.2.4 | The mediating role of intergroup emotions

First, we overviewed the effect of the intergroup threat manipulation on each discrete intergroup emotion using one-way ANOVA.

Anger

The effect of intergroup threat on anger was found to be significant, $F(2, 262) = 25.91$, $p < .001$, $\eta_p^2 = .17$. As compared with the control condition ($M = 4.46$, $SD = 1.64$), realistic threat ($M = 5.83$, $SD = 1.11$) increased anger towards the Western world, $t(262) = 6.09$, $p < .001$, $d = 0.98$, whereas symbolic threat ($M = 4.38$, $SD = 1.69$) showed no significant effect, $t(262) = 0.34$, $p = .736$, $d = 0.05$.

Fear

The effect of intergroup threat on fear was not significant, $F(2, 262) = 0.62$, $p = .538$, $\eta_p^2 = .01$.

Hatred

The effect of intergroup threat on hatred was found to be significant, $F(2, 262) = 16.79$, $p < .001$, $\eta_p^2 = .11$. In comparison with the control condition ($M = 3.80$, $SD = 1.69$), realistic threat ($M = 4.95$, $SD = 1.56$) increased hatred of the Western world, $t(262) = 4.60$, $p < .001$, $d = 0.71$, while symbolic threat ($M = 3.60$, $SD = 1.77$) showed no significant effect, $t(262) = 0.80$, $p = .423$, $d = 0.12$.

TABLE 1 Results of regression analyses with knowledge of the Western world as the moderator in Studies 3a and 3b

Predictor	DV: Willingness to purchase Chinese products	DV: Willingness to purchase Western products
Study 3a		
X1	$B = 0.46$, $SE = 0.40$, $t = 1.16$, $p = .246$, CI = [−0.32, 1.24]	$B = -2.18$, $SE = 0.64$, $t = -3.41$, $p < .001$, CI = [−3.44, −0.92]
X2	$B = 0.43$, $SE = 0.39$, $t = 1.09$, $p = .275$, CI = [−0.34, 1.21]	$B = -0.78$, $SE = 0.64$, $t = -1.22$, $p = .224$, CI = [−2.03, 0.48]
Knowledge	$B = -0.03$, $SE = 0.09$, $t = -0.37$, $p = .712$, CI = [−0.21, 0.14]	$B = 0.19$, $SE = 0.14$, $t = 1.37$, $p = .171$, CI = [−0.08, 0.47]
X1 × Knowledge	$B = -0.01$, $SE = 0.11$, $t = -0.06$, $p = .954$, CI = [−0.23, 0.21]	$B = 0.46$, $SE = 0.18$, $t = 2.57$, $p = .011$, CI = [0.11, 0.82]
X2 × Knowledge	$B = -0.08$, $SE = 0.11$, $t = -0.76$, $p = .447$, CI = [−0.29, 0.13]	$B = 0.10$, $SE0.17$, $t = 0.60$, $p = .547$, CI = [−0.23, 0.44]
Study 3b		= =
X1	$B = 0.53$, $SE = 0.41$, $t = 1.30$, $p = .194$, CI = [−0.27, 1.33]	$B = -0.95$, $SE = 0.54$, $t = -1.78$, $p = .076$, CI = [−2.01, 0.10]
X2	$B = 0.51$, $SE = 0.41$, $t = 1.23$, $p = .219$, CI = [−0.30, 1.32]	$B = -1.24$, $SE = 0.54$, $t = -2.30$, $p = .022$, CI = [−2.30, −0.18]
Knowledge	$B = -0.05$, $SE = 0.08$, $t = -0.61$, $p = .542$, CI = [−0.20, 0.11]	$B = 0.21$, $SE = 0.10$, $t = 2.02$, $p = .044$, CI = [0.01, 0.41]
X1 × Knowledge	$B = -0.06$, $SE = 0.10$, $t = -0.56$, $p = .579$, CI = [−0.26, 0.15]	$B = 0.15$, $SE = 0.14$, $t = 1.07$, $p = .284$, CI = [−0.12, 0.41]
X2 × Knowledge	$B = -0.06$, $SE = 0.11$, $t = -0.54$, $p = .592$, CI = [−0.26, 0.15]	$B = 0.25$, $SE = 0.14$, $t = 1.80$, $p = .073$, CI = [−0.02, 0.52]

Disgust

The effect of intergroup threat on disgust was found significant, $F(2, 262) = 20.86$, $p < .001$, $\eta_p^2 = .14$. As compared to the control condition ($M = 3.64$, $SD = 1.79$), realistic threat ($M = 5.18$, $SD = 1.62$) increased disgust for the Western world, $t(262) = 5.78$, $p < .001$, $d = 0.90$, while symbolic threat ($M = 3.74$, $SD = 1.91$) showed no significant effect, $t(262) = 0.34$, $p = .733$, $d = 0.05$.

Anxiety

The effect of intergroup threat on anxiety was not significant, $F(2, 262) = 0.92$, $p = .402$, $\eta_p^2 = .01$.

Hope

The effect of intergroup threat on hope was found to be significant, $F(2, 262) = 3.68$, $p = .027$, $\eta_p^2 = .03$. As compared to the control condition ($M = 5.02$, $SD = 1.45$), both realistic threat ($M = 4.52$, $SD = 1.63$) and symbolic threat ($M = 4.44$, $SD = 1.59$) reduced hope for better relations with the Western world, respectively, $t(262) = 2.14$, $p = .033$, $d = 0.33$, and $t(262) = 2.50$, $p = .013$, $d = 0.39$.

To further examine the possibility that intergroup threat indirectly affects the dependent variables (i.e., willingness to purchase Chinese products and willingness to purchase Western products) through intergroup emotions, we ran mediation analyses using Hayes' (2013) PROCESS command in SPSS (Model 4) with 5,000 Bootstrapping iterations. Full statistics for the indirect effects can be found in Table 2. As previous researchers suggested (Cheung & Lau, 2008), we interpreted indirect effects whose 95% bootstrap confidence interval (CI) did not include zero as statistically significant. In Figure 1, we summarize the standardized regression coefficients of the relationships examined in the mediation model.

TABLE 2 Indirect effects of intergroup threats on willingness to purchase through emotions in Study 3b

Mediation	Indirect effect (Boot*SE*)	BootCI
DV: Willingness to purchase Chinese products		
X1 → Anger → DV	0.13 (0.07)	[−0.02, 0.27]
X2 → Anger → DV	−0.01 (0.03)	[−0.07, 0.05]
X1 → Fear → DV	0.01 (0.03)	[−0.06, 0.07]
X2 → Fear → DV	−0.03 (0.03)	[−0.10, 0.03]
X1 → Hatred → DV	0.05 (0.05)	[−0.04, 0.17]
X2 → Hatred → DV	−0.01 (0.02)	[−0.06, 0.02]
X1 → Disgust → DV	−0.02 (0.06)	[−0.13, 0.09]
X2 → Disgust → DV	−0.00 (0.01)	[−0.03, 0.02]
X1 → Anxiety → DV	0.00 (0.01)	[−0.02, 0.03]
X2 → Anxiety → DV	0.01 (0.02)	[−0.01, 0.05]
X1 → Hope → DV	−0.04 (0.02)	[−0.09, −0.00]
X2 → Hope → DV	−0.04 (0.03)	[−0.10, −0.00]
DV: Willingness to purchase Western products		
X1 → Anger → DV	−0.27 (0.11)	[−0.50, −0.08]
X2 → Anger → DV	0.01 (0.05)	[−0.09, 0.12]
X1 → Fear → DV	−0.01 (0.03)	[−0.07, 0.04]
X2 → Fear → DV	0.02 (0.03)	[−0.03, 0.08]
X1 → Hatred → DV	−0.05 (0.07)	[−0.18, 0.09]
X2 → Hatred → DV	0.01 (0.02)	[−0.03, 0.06]
X1 → Disgust → DV	0.05 (0.09)	[−0.12, 0.23]
X2 → Disgust → DV	0.00 (0.02)	[−0.03, 0.05]
X1 → Anxiety → DV	0.00 (0.01)	[−0.02, 0.03]
X2 → Anxiety → DV	0.01 (0.02)	[−0.02, 0.05]
X1 → Hope → DV	−0.09 (0.05)	[−0.19, −0.01]
X2 → Hope → DV	−0.10 (0.05)	[−0.21, −0.02]

Willingness to purchase Chinese products

Hope mediated the dampening indirect effects of both realistic threat (versus control), a*b = −0.04, *SE* = 0.02, CI = [−0.09, −0.00], and symbolic threat (versus control), a*b = −0.04, *SE* = 0.03, CI = [−0.10, −0.00], on willingness to purchase Chinese products. This showed a suppression effect (MacKinnon et al., 2000) as the indirect effects contradicted the total effects that realistic and symbolic threats (versus control) led to higher willingness to purchase Chinese products (realistic threat: $B = 0.35$, $SE = 0.12$, $t = 3.00$, $p = .003$, CI = [0.12, 0.59]; symbolic threat: $B = 0.34$, $SE = 0.12$, $t = 2.89$, $p = .004$, CI = [0.11, 0.58]).

Willingness to purchase Western products

Anger mediated the dampening indirect effect of realistic threat, a*b = −0.27, *SE* = 0.11, CI = [−0.50, −0.08], whereas hope mediated the dampening indirect effects of both realistic threat (versus control), a*b = −0.09, *SE* = 0.05, CI = [−0.19, −0.01], and symbolic threat (versus control), a*b = −0.10, *SE* = 0.05, CI = [−0.21, −0.02], on willingness to purchase Western products.

4.3 | Discussion

Studies 3a and 3b, together, yielded findings consistent with our Hypotheses 1a and 1b regarding the main effects of realistic and symbolic threats. In general, the current study suggested that both threats were able to increase the biased behaviour of purchasing domestic products over those foreign alternatives. These findings provided additional support for integrated threat theory and extended it from the perspective of consumer behaviour—ingroup favouritism, as a consequence of realistic and symbolic threats, can also be found on consumers' willingness to purchase ingroup and outgroup products. Nonetheless, the findings were not completely consistent across Studies 3a and 3b, as symbolic threat (versus control) did not influence consumers' willingness to purchase Chinese products in Study 3a but it did in Study 3b. This may be due to the fact that the symbolic threat (versus control) manipulation in Study 3a only had a marginally significant effect on perceived symbolic threat according to the results of manipulation checking. In addition, the effect of realistic threat (versus control) in the present two studies did not replicate that in Studies 1 and 2, where realistic threat (versus control) did not influence consumers' willingness to purchase Chinese products. These inconsistent findings called for a meta-analysis to identify the most reliable findings.

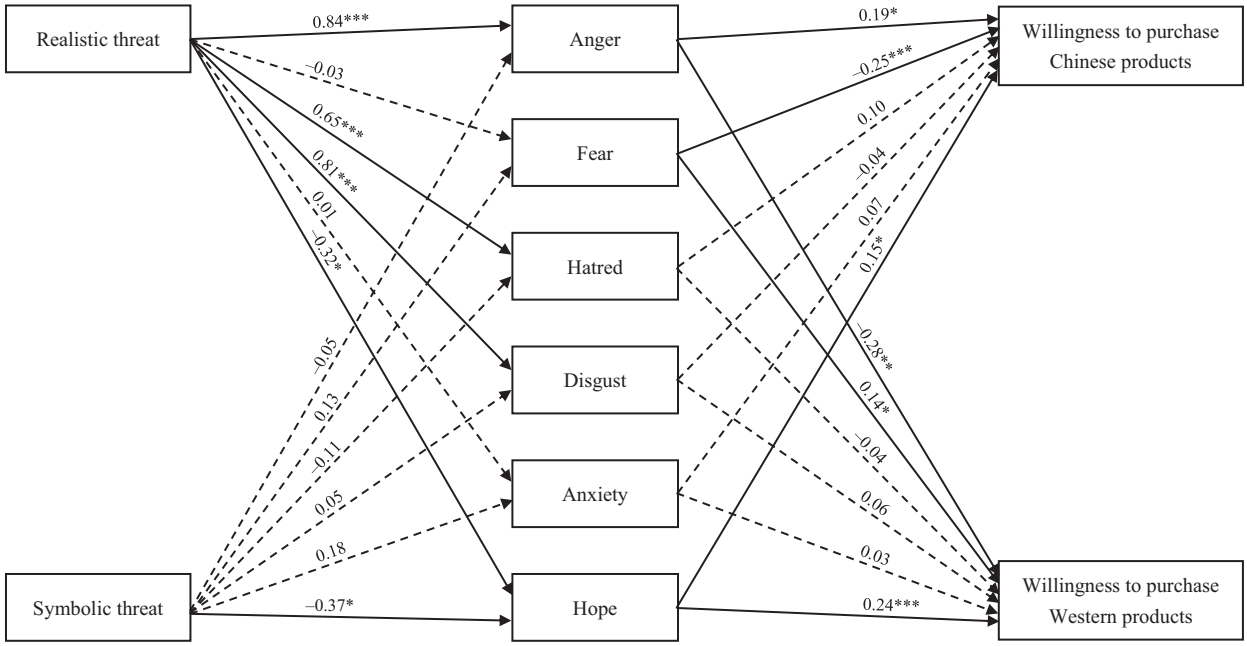

FIGURE 1 The mediation model in Study 3b. *Note*. Coefficients presented are standardized linear regression coefficients. ** $p < .010$; *** $p < .001$

Moreover, the results of Study 3a supported the notion that knowledge of the Western world functions as a buffer against the effect of intergroup threat, with better knowledge of the Western world impeding the negative effect of realistic threat (versus control) on willingness to purchase Western products. Therefore, consumers who knew the Western world better seemed to be uninfluenced by realistic threat, expressing a similar willingness to purchase Western products across conditions. This yielded support for the contact hypothesis that better knowledge of the outgroup can alleviate negative consequences of intergroup threat (Allport, 1954; Pettigrew & Tropp, 2005).

We also investigated the emotional mechanism underlying the influence of intergroup threat on willingness to purchase. The effect of intergroup threat on intergroup emotions towards the Western world showed an interesting pattern. Neither realistic threat nor symbolic threat (versus control) was associated with fear and anxiety, both of which are negative emotions related to non-aggressive responses like flight and avoidance (Greenland et al., 2012; Pliskin et al., 2015). One reason might be participants' desire to maintain self-esteem. As fear and anxiety are often associated with low self-esteem, Chinese consumers tried to deny their fear and anxiety for the Western threat in order to maintain their self-esteem. This explanation resonates with findings from previous research that vulnerability-denying and aggression-expression are strategies for stress management (Greenberg, et al., 1993; Shalit, 1994). Therefore, denying fear and anxiety while expressing aggressive emotions can be a defensive reaction to outgroup threat. Moreover, only realistic threat (rather than symbolic threat), as compared to the control condition, increased anger, hatred and disgust, which are often related to aggressive action intentions in response to threat from the outgroup (Mackie et al., 2000; Matsumoto et al., 2017; Smith & Mackie, 2005). These findings were consistent with the hypothesis in realistic conflict theory that competition for resources facilitates aggressive attitudes towards an outgroup (Jackson, 1993). In addition, both realistic and symbolic threats (versus control) decreased positive emotion, that is, hope for better relations. These findings, together, supported the notion that specific threats are linked to specific and functionally relevant emotions (Cottrell & Neuberg, 2005).

Nonetheless, only anger and hope mediated the relationships between intergroup threats and willingness to purchase. On the one hand, realistic threat (versus control) indirectly reduced willingness to purchase Western products through increased anger. On the other hand, realistic threat (versus control) and symbolic threat (versus control) indirectly reduced willingness to purchase both Chinese and Western products through decreased hope. However, the indirect effects of realistic and symbolic threats (versus control) on willingness to purchase Chinese products through hope contradicted the total effects that both threats (versus control) led to higher willingness to purchase Chinese products. A plausible reason for this suppression effect (MacKinnonet et al., 2000) may be that the decreased hope reflected a generally negative state of mind, thus decreasing overall willingness to purchase regardless of Chinese or Western products.

5 | INTERNAL META-ANALYSIS

Across our four studies, the results were inconsistent in terms of the conditions (i.e., realistic threat and/or symbolic threat) that emerged a significant effect. We conducted an internal meta-analysis designed to identify the most reliable findings from Studies 1 to 3b.

As the symbolic threat condition unexpectedly induced a perceived realistic threat in Study 1 and showed a marginally significant effect on perceived symbolic threat in Study 3a, we first meta-analysed the effects of realistic and symbolic threats (versus control) on perceived realistic threat and perceived symbolic threat (as the manipulation checks). Based on Cohen's *d*s, we found that perceived realistic threat was greater in the realistic threat condition than in the control condition, $d = 0.53$, $p < .001$, CI = [0.37, 0.68], and the symbolic threat condition, $d = 0.43$, $p < .001$, CI = [0.23, 0.62], although it did not show significant difference between symbolic threat and control conditions, $d = 0.15$, $p = .065$, CI = [−0.01, 0.30]. Likewise, perceived symbolic threat was greater in the symbolic threat condition than in the control condition, $d = 0.46$, $p < .001$, CI = [0.30, 0.62], and also than in the realistic threat condition, $d = 0.44$, $p < .001$, CI = [0.29, 0.60], while it did not show significant difference between realistic threat and control conditions, $d = 0.11$, $p = .169$, CI = [−0.05, 0.26]. These results suggest that our manipulation of intergroup threat was successful in general.

Again, drawing on Cohen's *d*s obtained from the post hoc comparisons in the four studies, we meta-analysed the effects of realistic and symbolic threats (versus control) on willingness to purchase Chinese products and willingness to purchase Western products, regardless of different operationalizations of the dependent variables. Overall, both realistic threat and symbolic threat, as compared to the control condition, increased willingness to purchase Chinese products (realistic threat: $d = 0.33$, $p = .013$, CI = [0.07, 0.58]; symbolic threat: $d = 0.19$, $p = .018$, CI = [0.03, 0.35]) while decreasing willingness to purchase Western products (realistic threat: $d = 0.51$, $p < .001$, CI = [0.34, 0.67]; symbolic threat: $d = 0.28$, $p = .003$, CI = [0.09, 0.47]).

We then transformed the *B*s obtained from the regression analyses in Studies 3a and 3b to Pearson's *r* and meta-analysed the interactive effects of realistic threat (versus control) × knowledge of the Western world and symbolic threat (versus control) × knowledge of the Western world on willingness to purchase Chinese products and willingness to purchase Western products. The results suggested that, on the one hand, neither the realistic threat (versus control) × knowledge interaction, $r = -.02$, $p = .651$, CI = [−0.11, 0.07], nor the symbolic threat (versus control) × knowledge interaction, $r = -.04$, $p = .354$, CI = [−0.13, 0.05], influenced willingness to purchase Chinese products. On the other hand, only the realistic threat (versus control) × knowledge interaction, $r = .11$, $p = .016$, CI = [0.02, 0.21], but not the symbolic threat (versus control) × knowledge interaction, $r = .08$, $p = .081$, CI = [−0.01, 0.16], had a significant effect on willingness to purchase Western products. To decompose this significant interactive effect, we also meta-analysed the simple effects of realistic threat (versus control) on willingness to purchase Western products as moderated by knowledge of the Western world, revealing that realistic threat (versus control) reduced willingness to purchase Western products mainly among consumers who had less knowledge of the Western world, $r = -.20$, $p < .001$, CI = [−0.29, −0.11], but not among those who knew the Western world better, $r = -.05$, $p = .287$, CI = [−0.13, 0.04].

6 | GENERAL DISCUSSION

The primary goal of the present research was to examine the role of intergroup threat in affecting consumers' willingness to purchase ingroup and outgroup products. As predicted by Hypotheses 1a and 1b, the results of four experiments indicated that both realistic and symbolic threats can increase ingroup bias in purchasing, as they increased willingness to purchase ingroup products and decreased willingness to purchase outgroup products.

In addition to the main conclusion, some interesting additional effects were uncovered. First, Studies 3a and 3b revealed the moderating role of knowledge of the outgroup—realistic threat (versus control) reduced willingness to purchase outgroup products only among individuals with less knowledge of the outgroup, yielding partial support for Hypothesis 2. Moreover, according to the results of Study 3b, realistic and symbolic threats demonstrated effects on different intergroup emotions. Specifically, realistic threat increased aggressive negative emotions (i.e., anger, hatred and disgust) but undermined positive emotion (i.e., hope) whereas symbolic threat only diminished positive emotion. However, only anger and hope mediated the effects of realistic and/or symbolic threats on the dependent variables regarding willingness to purchase, providing support for Hypotheses 3a (partially) and 3f.

In summary, these findings provided direct or indirect support for integrated threat theory (Stephan & Stephan, 1996), intergroup emotions theory (Mackie et al., 2000, 2009), and contact hypothesis (Allport, 1954) from the perspective of consumer behaviour.

6.1 | Theoretical implications

Our work contributes to the literature on both intergroup relations and consumer behaviour. First, it significantly extends past research on intergroup threat, intergroup contact and intergroup attitudes/behaviours. Although past research has found considerable evidence supporting the influence of intergroup threat on ingroup bias (e.g., Cea D'Ancona, 2018; Croucher, 2013; Moss et al., 2019), little has examined willingness to purchase, or broader consumer behaviour, as a form of intergroup behaviour. Employing a consumer behaviour perspective, our research strengthens the hypotheses from integrated threat theory (Stephan & Stephan, 1996) that ingroup bias arises when people perceive realistic and symbolic threats from the outgroup. More importantly, our findings imply that consumer behaviour can be highly relevant to intergroup processes. When consumers make decisions on purchasing an ingroup product or an outgroup product, they experience self-categorization and identification processes to distinguish themselves from the outgroup (Tajfel & Turner, 1979; Turner et al., 1987). Once consumers realize that intergroup competition for resources or cultural differences threaten the ingroup with which they identify, they are motivated to be more positive towards ingroup products while expressing more negativity towards outgroup products in

order to enhance their social identity and mitigate the uncomfortable feeling of being threatened.

Likewise, little has been known about how intergroup contact affects consumer behaviour in the existing intergroup literature. Our findings provide side evidence for contact hypothesis (Allport, 1954) by examining the moderating role of knowledge of the outgroup in the relationship between intergroup threat and willingness to purchase outgroup products.

The current research also points to the importance of emotional responses in the relationship between intergroup threat and willingness to purchase. Although previous research has tested the role of individual-level emotions in affecting consumers' choice between domestic and foreign products (e.g., Antonetti et al., 2019; Pullman et al., 1997), how emotions generated in an intergroup context influence remains insufficiently studied. The current research extends the intergroup emotions theory (see Mackie et al., 2000, 2009) by examining the roles of discrete emotions in intergroup purchasing.

Our work also contributes to consumer behaviour research by focusing on the intergroup processes of consumer behaviour. In fact, some side evidence supporting our findings can also be found in consumer behaviour research. For example, in the animosity model of foreign product purchase (Klein et al., 1998), economic animosity, which is measured in a similar way to perceived threat (e.g., "US wants to gain economic power over KSA (Saudi Arabia)" in Sohail & Opoku, 2016), has been found to be related to a lower willingness to buy foreign products (Shoham & Gavish, 2016), more negative evaluations of them (Sohail & Opoku, 2016), and higher intentions to boycott them (Ali, 2021). Moreover, evidence from different countries including the United States, India, and Korea suggests that people lower in cultural openness are less open to foreign products and more likely to purchase domestic products (Gammoh et al., 2015; Sharma et al., 1995). These findings imply that those who are more susceptible to intergroup threat caused by cultural differences will show greater ingroup bias in their purchasing behaviour. In addition, compensatory consumption theories have posited that lack of control in a domain drives compensatory consumption and motivates consumers to purchase products that symbolize their control in this domain (Chen et al., 2017; Mandel et al., 2021). As intergroup threat is related to a feeling of losing control of "ours" (Verkuyten & Martinovic, 2017), consumers tend to regain the sense of control by purchasing products marked by "ours" (e.g., ingroup products) when feeling threatened by the outgroup. Nonetheless, intergroup processes of consumer behaviour are scarcely discussed in those studies. Our findings strengthen the empirical evidence from this body of literature by tapping into the intergroup processes underlying consumers' willingness to purchase ingroup and outgroup products, indicating that intergroup threat amplifies ingroup bias in consumers' willingness to purchase while knowledge of the outgroup country buffers this effect. More importantly, our research shows that this effect of intergroup threat on willingness to purchase can be broadly found when referring to the "made-in" label, the brand origin, and the cultural symbol of the product.

6.2 | Applied implications

Our research has major practical implications for transnational and domestic marketing. When multinational companies seek to develop markets in a foreign country, they need to recognize the importance of intergroup relations. First of all, international conflicts between countries should be a crucial concern in transnational marketing. When a country has blatant conflicts with the original country of a multinational company, the efforts to promote products in that country might not be effective or might even backfire. Nonetheless, our research also indicates that threat from a foreign country can be manipulated to some extent. As integrated threat theory suggests (Stephan et al., 2005), what really affects ingroup bias is the perception of threat rather than the conflict per se. In this sense, threat is cognitive in essence, because people try to understand intergroup relations with their own ways and different ways will result in different consequences—perceiving increased threat from the outgroup or not (Sassenrath et al., 2016). Such that it provides sufficient room for transnational marketing practitioners to seek manoeuvres to depict the COO as unthreatening when advertising their products. Moreover, as the COO can be perceived from the "made-in" label, brand origin, or cultural symbol of a product, multinational companies can integrate the "localized" appeals to their branding strategies by promoting the localization of production (e.g., local manufacture, local employment, and use of local raw materials) and integrating their brand culture with local culture (e.g., using local images, symbols, and locally-sounding product names; Kipnis et al., 2012). They can try to design advertisements based on local culture and natural environment thereby depicting themselves as a friend rather than an intruder. In addition, evidence from research on knowledge of the outgroup can also be useful in transnational marketing. Public relations campaigns aiming to enhance consumer' knowledge of the COO could be an effective strategy for multinational companies before starting to promote their products in a target country.

On the other hand, when a domestic brand faces foreign competitors, an effective strategy to enhance competitiveness is to highlight its "domestic identity" by comparing itself with a foreign brand that is regarded as "threatening" by domestic consumers. Domestic marketing practitioners should keep in mind that one of the best opportunities to promote their products is when domestic consumers feel being threatened by foreign countries. An instance is the success of China-chic (Guo Chao in Chinese pinyin) marketing in China. By labelling their products as China-chic and underscoring the incorporation of traditional Chinese elements into their product style, many local brands in China witnessed a surge in their sales in recent years.

6.3 | Limitations and directions for future research

The present studies have several methodological and theoretical limitations. For example, in Study 1, our attempt to manipulate symbolic threat was not successful as it unintendedly induced perceived realistic

threat. In addition, in Study 3a, symbolic threat, as compared to the control condition, only had a marginal trend to increase perceived symbolic threat. Although we successfully settled these problems in our subsequent studies and the meta-analysis suggested an overall successful manipulation of intergroup threat, it warrants a cautious interpretation of the results from Studies 1 and 3a.

The current data is also subject to limitations. First, data collected online from the panel platforms (i.e., Tencent Questionnaire and WJX) is non-representative. The responses of elder consumers and non-active internet users are underrepresented in the current data, and therefore researchers should be cautious when applying our conclusions to these groups of people. Second, social desirability bias may exist in participants' reactions to our manipulations. In Study 1, participants gave extreme responses on both patriotism ($M = 6.74$, $SD = 0.49$) and nationalism ($M = 6.21$, $SD = 0.85$) scales (scored from 1 to 7, and 7 representing the higher level; see the supplementary material for these two additional measures), which implies a strong social desirability bias in their responses. In contemporary China, people are propagandized into believing that patriotism (or even nationalism) is one of the core socialist virtues (Schneider, 2018). A noticeable consequence of the increasingly nationalistic patriotism is the stigmatization of Western products (Wang & Wang, 2007). Despite little scholarly research on this phenomenon in current China, the "mainstream ideology" on Chinese social media describes preference for Western products as a betrayal of the country. Due to the desire to be (at least outwardly) patriotic and politically correct, participants in our studies had a strong motivation to compliment domestic products and derogate the foreign ones. This issue of social desirability can lead to a "ceiling" effect on willingness to purchase ingroup products—as participants are already extremely high in their willingness to purchase ingroup products before receiving the threat induction, intergroup threat is not able to increase scores on this measure anymore. This may partially explain why we observed a non-significant effect of our manipulation on willingness to purchase Chinese products in Studies 1 and 2. Moreover, we admit that it is possible that social desirability bias delegitimized purchasing outgroup products thus also influencing our measure of willingness to purchase Western products.

As consistently mentioned above, patriotism and nationalism are relevant for consumers' willingness to purchase domestic and foreign products (Balabanis et al., 2001; Castelló & Mihelj, 2018). However, we did not include them in our analyses as potential moderators for the relationship between intergroup threat and willingness to purchase ingroup and outgroup products. In fact, we indeed preregistered patriotism and nationalism as exploratory measures for Study 1 and report them in the supplementary materials, but we found that the overwhelming majority of participants were extreme "patriots" and "nationalists" (nationalism: $M = 6.21$, $SD = 0.85$; patriotism: $M = 6.74$, $SD = 0.49$). Considering the lack of variability of the data due to these extreme responses, we decide not to include these two measures in the current paper. As mentioned before, we argue that one pivotal reason for the extreme responses to our patriotism and nationalism measures is the pressure of to be "politically correct". Future research can seek to establish a valid Chinese version of the measurement for patriotism and nationalism.

In addition, as our data was collected in China, cross-cultural generalization is a concern. We expect the effect of our manipulation on consumers' willingness to purchase to be magnified as compared to that in Western countries, as threat from the foreign countries can elicit particularly strong defensive reactions among Chinese people. With the collective memory of resistance to Western and Japanese invasions in the past two centuries, generations of political leaders and activists have been seeking to inculcate nationalism into Chinese people as a kind of "virtue" (Hilton & Liu, 2008; Liu et al., 2010). Hence, people in contemporary China are particularly reactive to outgroup threat. This leaves uncertainty about whether our results can be replicated in Western and other East-Asian countries. However, the sampling in China is at least an opportunity—in doing so we are able to contribute to the current intergroup relations and consumer behaviour research by offering a non-WEIRD (White, Educated, Industrialized, Rich, and Democratic) view.

Finally, from the current research findings, we cannot fully understand consumer behaviour in purchasing ingroup and outgroup products in terms of consumers' motivations. We suspect that there are at least two competing motivations that can drive consumers' preferences for ingroup products over outgroup products when facing intergroup threat. One is ingroup favouritism, involving passive avoidance of outgroup products. In this sense, a desire to positively distinguish themselves from the outgroup, as postulated by social identity theory (Tajfel & Turner, 1979), can explain the motivation behind consumers' ingroup favouritism in willingness to purchase when being threatened. As consumers seek a positive social identity for their ingroup, when facing an outgroup threat, they will have a stronger desire to maintain positive distinctiveness from the outgroup by claiming that ingroup products are better than the outgroup alternatives (Stephan et al., 2005). Another is outgroup derogation, which should lead to active boycotts against outgroup products. As threats from the outgroup are usually associated with detrimental consequences for the ingroup, for example, being disadvantaged in the competition for resources (realistic threat) and finding ingroup culture undermined (symbolic threat), consumers should have a strong tendency to take retaliatory actions when they feel being threatened. Boycotting an outgroup product while supporting the alternative ingroup product can be a common way to retaliate against the outgroup (Benstead & Reif, 2017). Our future research will focus on consumers' evaluation of product quality and intentions to engage in collective action against outgroup products. In doing so, we hope to clarify these competing motivations behind purchasing ingroup and outgroup products.

ETHICS STATEMENT

This research adheres to ethical guidelines specified in the American Psychological Association Code of Conduct as well as authors' national ethics guidelines, and was reviewed and approved by the scientific review committee of the School of Business and Management, Shanghai International Studies University. The participants provided their informed consent online to participate in the studies.

DATA AVAILABILITY STATEMENT

Data supporting this research is available on the OSF page (https://osf.io/tdn57/).

TRANSPARENCY STATEMENT

We affirm that this manuscript is an honest, accurate, and transparent account of the studies being reported; that no important aspects of the studies have been omitted; and that any analyses preregistered but not reported are included in the supplemetary materials.

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

ORCID

Feiteng Long https://orcid.org/0000-0002-4057-8945
Zi Ye https://orcid.org/0000-0003-4408-5854

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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