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INTRODUCTION

Consumer ethnocentrism is a key concept in cross-cultural consumer research. It was first introduced in marketing in 1987 by Shimp and Sharma (1987) and has since become a popular concept with consumer researchers. Consumer ethnocentrism has been useful in predicting consumer biases across the globe and is used extensively for cross-cultural comparisons. Consumer ethnocentrism explains why people may be biased in their evaluations of foreign products and may favor domestic products over foreign ones. Looking back on the 33 years of research on consumer ethnocentrism, not many other constructs have been examined for such a long period of time or have received as much academic attention. A Google Scholar search identified more than 3,474 citations of the original Shimp and Sharma (1987) article that launched the concept of consumer ethnocentrism in the *Journal of Marketing Research*. Researchers around the globe used Shimp and Sharma's (1987) measurement scale of consumer ethnocentrism, which has stood the test of time and has been found to be cross-culturally invariant. The scale has also been endorsed by numerous marketing academics (Durvasula, Andrews, & Netemeyer, 1997; Herche, 1992; Netemeyer, Durvasula, & Lichtenstein, 1991; Sharma, Shimp, & Shin, 1995; Steenkamp and Baumgartner, 1998). More recent studies (Sharma, 2015; Siamagka & Balabanis, 2015) have sought to conceptually expand the construct.

Despite the extensive empirical research, emerging insights have not always been conclusive. There is a breadth of research related to consumer ethnocentrism that one must contend with. Consumer ethnocentrism has been used for different research objectives, with different methodologies and demand artifacts as well as in different cultural and economic settings. There has also been an increasing amount of research reexamining and refining established hypotheses and relationships with the application of new theoretical frameworks and the addition of new antecedents, moderators, and outcome variables. With the explosion

in the breadth and depth of consumer ethnocentrism literature, a quantitative integration and refinement of the extensive empirical findings is necessary.

More specifically, the extent to which the broader macro-societal context influences consumer ethnocentrism has not been addressed. Social identity theory (Tajfel and Turner 1979, 1986), which provides the theoretical underpinning of consumer ethnocentrism (Shimp & Sharma, 1987), has extensively discussed structural variables, such as the nature of group identities and the likelihood that they vary in a systematic way across different societies (Hofstede, 1980). Tajfel et al. (1978) posit that group-based biases should be understood within the context in which they occur rather than as a universal phenomenon. At the core of consumer ethnocentrism is the moral obligation of people to buy domestic products as a means to support and protect the domestic economy and employment. The consumer ethnocentrism scale (CETSCALE) (Shimp & Sharma, 1987) includes items such as “It is not right to purchase foreign products, because it puts fellow countryman out of jobs”, “We should purchase products manufactured in the home country instead of letting other countries get rich off us”, and “Consumers who purchase products made in other countries are responsible for putting their fellow countryman out of work”. These sentiments epitomize consumers’ sense of obligation to protect the domestic economy from unemployment and the “invasion” of foreign products. People are more likely to protect themselves from such threats when perceived as severe and when vulnerability to the threat is high (e.g., during a recession, high trade deficits, high unemployment). Thus, a society suffering economic hardship is more likely to feel the need to protect itself from foreign products.

Our review thus far raises several questions: Is consumer ethnocentrism a universal trait characterizing all societies across the world? Is it the product of transitory economic hardships (e.g., recession, unemployment, trade deficits) that awakens dormant ethnocentric instincts to economically protect the in-group? Does the culture a person has grown in shape

consumer norms and the sense of obligation to society? The theoretical basis for the construct in social identity theory provides little guidance with regard to these questions. In this study, we focus on the effect of culture and economic conditions as potential variables influencing consumer ethnocentrism. In answering these questions, we provide insights into the boundary conditions of consumer ethnocentrism and discern potential mechanisms that drive consumer bias. Beyond social identity theory, Hofstede's (1980) individualism–collectivism and Schwartz's (1994) autonomy versus embeddedness dichotomies provide different lenses for understanding the relationship of the individual to his or her in-group or out-groups across cultures (Triandis, 1995; Smith & Bond 1998; Smith et al., 2013). Several studies have identified cultural differences and have explained the applicability of social identity theory premises in collectivist and individualistic societies (e.g., Brown et al. 1992; Jetten, Postmes, & McAuliffe, 2002; Yamagishi et al. 1998).

Alternative explanations to social identity theory have been proposed. Hogg (2007) proposes that bias in favor of one group is related to uncertainty reduction, highlighting the significance of broader macro-contextual factors. To address the need to examine these macro-contextual effects, the current study considers cultural and economic effects and their influence on consumer ethnocentrism. This approach provides an enhanced contextualization and positioning of the construct. To date, consumer ethnocentrism research related to country differences has focused primarily on the moderating effects of the country on product evaluations and consumer preferences, with little attention to the generative forces of ethnocentrism. Indeed, there seems to be variation in the levels of consumer ethnocentrism reported by various researchers that goes beyond methodological differences. With the exception of one study, in which the scope was limited (Guo & Zhou, 2017), there is a paucity of research that integrates the wealth and chaotic nature of the empirical results on

consumer ethnocentrism Adopting a meta-analytic approach, this paper contributes to the consumer ethnocentrism theory in the following ways:

-This is the first study to quantitatively synthesize the vast empirical research on consumer ethnocentrism over a broad spectrum of economic and cultural settings. This will provide more accurate inferential explanatory results over conceptual studies.

-Researchers have rarely examined cultural and economic antecedents of consumer ethnocentrism in one study and compared them. The meta-analytical results of this study offer a quantitative comparison.

-Empirical results diverge regarding the determinants of consumer ethnocentrism. Some of this divergence may be attributed to methodological variation and bias, but some may be attributable to differences in contextual settings of the study (e.g., the cultural and economic characteristics of the market). This study identifies the sources and size of this divergence and provides a theoretical explanation to guide future research.

LITERATURE AND HYPOTHESES

The Construct and its Operationalization

The key question regarding consumer ethnocentrism is whether we can diagnose a general consumer tendency to favor of domestic versus foreign products. This general tendency in a social context was first conceptualized in 1906 by Sumner. Sumner (1906) defines “ethnocentrism” as the tendency of individuals to differentiate between the in-group and the out-group, which is associated with beliefs of one’s own group superiority and contempt of outsiders.

The term “consumer ethnocentrism” was introduced in 1987 and is defined as “the beliefs held by consumers about the appropriateness, indeed morality, of purchasing foreign-made products” (Shimp & Sharma, 1987, p. 280). Providing greater clarity, scholars subsequently highlighted that consumer ethnocentrism is a “trait-like property of individuals’ personalities” (Sharma et al., 1995, p. 27). At the heart of the concept are issues of morality and patriotism. To an ethnocentric consumer, purchasing foreign products is wrong, it hurts the domestic

economy, and it is unpatriotic. According to Shimp and Sharma (1987, p. 288), CET is the result of the socialization process, and this ethnocentric tendency develops like other behavioral patterns. Shimp and Sharma (1987) developed a measure of consumer ethnocentrism (CETSCALE), which demonstrates good psychometric properties across different cultures (e.g., Durvasula et al., 1997; Netemeyer et al., 1991).

Contextual Conditions that Foster Consumer Ethnocentrism

Before we delve deeper into the construct of consumer ethnocentrism, it is important to examine the theoretical underpinnings of general (societal) ethnocentrism, where the construct has its roots. At a social level, Kinder and Kam (2010) suggest that general ethnocentrism can have its origins in (1) authoritarian personality (Adorno et al, 1950), (2) conflict theory (Sherif, 1966), and (3) social identity theory (Tajfel, 1978). We discuss these next.

Authoritarianism

Ethnocentrism is attributed to an authoritarian personality type, which is measured by the F-scale (Adorno et al., 1950). More recently, Stenner (2005) reconceptualized the authoritarian personality, arguing that ethnocentrism is an outgrowth of authoritarianism. Authoritarianism seems to arise from a tension between personal autonomy and social cohesion, with authoritarians choosing social cohesion and encouraging uniformity rather than autonomy. Interestingly, Stenner (2005) suggests that authoritarianism and ethnocentrism become relevant only when the social cohesion of a country is threatened. When real or imaginary threats to social cohesion loom, a typical response is the glorification of the in-group and the deprecation of out-groups, together with greater conformity to social norms and intolerance of deviant behaviors. Societal or normative threats, such as social disorder, moral decay, national/economic decline, political dissent, and political instability, can activate manifestations of authoritarian predispositions. In particular, Staub (1999) posits that

“difficult life conditions” can lower group self-esteem and frighten individuals by threatening their values and way of life. This creates a powerful drive to restore psychological security and positive self-concept. This restoration is accomplished by clinging to the in-group and devaluing out-groups.

Realistic Group Conflict Theory

Sumner (1904) was one the first to suggest that conflict and intergroup competition for scarce resources and control are responsible for ethnocentrism. These ideas were formalized and expanded by Sherif's (1966) realistic group conflict theory. The relationships with other groups affect the development of ethnocentrism (Sherif & Sherif, 1979). Factors such as real or imagined threats to the security of the group, economic interests, gaining of political advantage, military considerations, and social status can lead to conflict and negative stereotyping and prejudices against other groups. These factors, in turn, increase intragroup solidarity and in-group identification. According to Sherif and Sherif (1979, p. 11), “with the rise of prejudicial attitudes toward the other groups, self-glorifying or self-justifying attitudes toward one's own group are strengthened”.

Social Identity Theory

Social identity theory also claims that discrimination against out-groups helps individuals maintain positive social identities based on in-group membership. The basic assumption of social identity theory is that people are motivated to maintain a positive identity and to maintain and enhance their self-esteem (Tajfel & Turner, 1979) Social categorization is a central process in this theory, as the ensuing categories “provide a system of orientation and self-reference” (Tajfel and Turner, 1979, p. 40). The outcomes of the categorization process are positive in-group bias and out-group disparagement. Brewer (1999) takes this one step further, suggesting that through evolution the need for security is more powerful than the quest for self-esteem in giving rise to in-group favoritism.

A Universal or a Culturally Imposed Trait?

Shimp and Sharma (1987) adopt a social learning view when explaining the development of consumer ethnocentrism. They argue that consumer ethnocentrism is formed at an early age through the socialization process (i.e., a culturally transmittable trait). Consumer ethnocentrism, as an outgrowth of general ethnocentrism studied by anthropologists, may have biological underpinnings. Evidence from anthropological studies supports the universality of ethnocentrism (e.g., MacDonald, 1996; Shaw & Wong, 1989; Vine, 1987), a view that adopts a social Darwinist explanation. The idea of a genetic predisposition to ethnocentrism is strengthened by results that identify similar ethnocentric behavior in chimpanzees (Goodall, 1986).

Corroborating this genetic nature of ethnocentrism, Hart et al. (2000) conducted experiments using functional magnetic resonance imaging of brain activity. The experiments registered different responses in the human amygdala to the presentation of racial out-group versus in-group faces, indicating that amygdala responses vary according to the in-group and out-group classification of the faces. The amygdala is responsible for encoding socially and/or biologically relevant information. This highlights that ethnocentrism is an adaptive trait that varies with the evolution of societies and becomes less prevalent in more advanced societies. The theory claims that “genetic-self-interest” and survival instincts lead to ethnocentric behaviors such as cooperation and reciprocation within a group but not outside the group (Van den Berghe, 1999).

In addition to this biological explanation for ethnocentrism, Dunbar (1987, p. 52) argues that the rise of ethnocentrism is influenced by context and other socioeconomic factors: “It is not difficult to imagine that there will be ecological conditions that mitigate against outright ethnocentrism. Conditions of economic superabundance are likely to relax the pressures in its

favor, thereby allowing other factors to militate in favor of other patterns of behavior.

Increasing shortages of resources are likely to encourage the development of ethnocentric tendencies”.

Cultural and biological explanations of ethnocentrism seem to be interlinked. Van den Berghe (1987) suggests that through the application of Dawkin’s (1976) “meme-tics” theory of the evolution of culture, it becomes evident that culture grows out of biological evolution. This theory proposes that there is a natural selection process of theoretical units of ideas (called “memes”). For Van den Berghe, (1999), ethnocentrism is a cultural meme complex, and the ethnocentric memes are shaped by the same evolutionary process. Both in-group favoritism and out-group hostility tend to be stronger in competitive situations or in the presence of external threats (Brown, 1988; Sherif, 1966). However, in-group favoritism is likely to evolve only when affiliation with the in-group generates valuable resources or scarce social goods (Sanders, 2002) or allows for a more effective response to external threats (Rabbie et al., 1974).

Cultural Variation

From the inception of the concept, Shimp and Sharma (1987, p. 288) recognized the role of cultural context in the development of ethnocentric values in the early socialization process when culture is transmitted to a new generation. The cross-cultural equivalence of the scale allows comparative studies of CET, albeit in a rather limited number of countries each time. For example, U.S. consumers are more ethnocentric and perceive domestic buying as more important than Russian consumers (Durvasula et al., 1997). In another study of this type, Greek consumers are found to be more ethnocentric than British and Belgian consumers (Steenkamp & Baumgartner, 1998), while CETSCALE scores of Korean consumers are significantly higher than those of U.S. consumers (Sharma et al., 1995). More recently, scholarly inquiry has provided a more extensive examination of consumer ethnocentrism

consisting of 21 countries (Han & Won, 2018). Based on Hofstede's (1980) work, Han and Won (2018) fail to uncover any cultural differences in the construct. However, due to the limited comparison basis, no theoretical justification is offered for the observed differences in consumer ethnocentrism scores.

Most extant work either focuses on comparisons of consumer ethnocentrism levels among a limited number of countries and cultures (e.g., Durvasula et al., 1997; Netemeyer et al., 1991; Sharma, et al., 1995; Steenkamp & Baumgartner, 1998) or directly associates observed consumer ethnocentrism with cultural values or orientations, which are measured at an individual consumer level, not at a collective cultural level (Balabanis, Mueller & Melewar, 2002; Ma, Yang & Yoo, 2020; Yoo & Donthu, 2005). Various empirical studies have addressed the relationships of several cultural dimensions with consumer ethnocentrism (Balabanis et al., 2002; Gürhan-Canli & Maheswaran, 2000; Sharma et al., 1995; Yoo & Donthu, 2005). To understand the impact of culture on consumer ethnocentrism levels, two cultural value frameworks (Hofstede 1980, 2001; Schwartz 1994, 2006) are employed. Despite its limitations, Hofstede's framework remains the most widely used (Taras et al., 2010) in academic inquiry. In its initial conception, this framework included four cultural dimensions: individualism–collectivism, uncertainty avoidance, power distance, and masculinity–femininity. Hofstede (2011) recently expanded the framework to six cultural dimensions: (1) individualism–collectivism, which measures the emphasis on the independent self-concept (individualism) versus the interdependent (group) self-concept (collectivism); (2) power distance, which assesses the acceptance of unequal power distribution in a society; (3) societal masculinity–femininity, which considers the emphasis on values such as competitiveness and assertiveness (masculinity) or values of caring, interpersonal relationships, and modesty (femininity); (4) uncertainty avoidance, which measures the acceptance of uncertainty and ambiguity; (5) long-term orientation, which assesses a focus on

the past, the present (short-term), or the future (long-term); and (6) indulgence versus restraint, which assesses the degree to which people believe in the free fulfilment of human desires, such as enjoyment of life and having fun (indulgence).

In 1994, Schwartz developed a different framework that, despite various overlaps, diverges from Hofstede's (1980) in several ways. Schwarz's (1994) cultural orientations have seven interrelated dimensions: intellectual autonomy, affective autonomy, embeddedness, egalitarianism, hierarchy, harmony, and mastery. The seven orientations are classified into three broad categories related to the following aspects of society: (1) the relationship and boundaries between the person and the group (intellectual or affective autonomy vs. embeddedness), (2) the emphasis placed on social hierarchy (egalitarian vs. hierarchical), and (3) the relationship of humans to natural resources (harmony vs. mastery).

Most cross-cultural studies on consumer ethnocentrism provide explanations for the observed differences with Hofstede's (1980, 2001) dimensions, which are used as the basis of the initial hypotheses formulation. Specifically, the following cultural dimensions are theoretically related to consumer ethnocentrism: (1) the relations of individuals with their cultural group (individualism–collectivism), (2) tolerance of uncertainty (uncertainty avoidance), (3) masculinity–femininity, and (4) long-term orientation. Some of the dimensions are encountered in both cultural frameworks. For example, Schwartz's (1994, 2006) contrast of autonomy (which involves intellectual and affective autonomy) and embeddedness is conceptually similar to Hofstede's individualism–collectivism dimension. Being embedded in social groups and deriving meaning and identity from belonging to such groups contrasts with the notion of autonomy, where the individual is free to think and act on the basis of his or her self-interests. Schwartz (1994) maintains that this dimension (autonomy vs. embeddedness) is conceptually more truthful to the meaning of individualism–collectivism than that of Hofstede's dimension. Schwartz's study establishes that Hofstede's

individualism dimension is positively correlated with affective autonomy and intellectual autonomy and negatively correlated with embeddedness.

Similarly, other dimensions of the Hofstede framework are significantly correlated with Schwartz's dimensions. Harmony, for example, is positively correlated with Hofstede's uncertainty avoidance, and mastery is positively correlated with masculinity. These results are corroborated by Steenkamp's study (2001). However, Steenkamp (2001) fails to find significant correlations between Schwartz's egalitarian, harmony, and hierarchy values and Hofstede's dimensions, indicating that these three values are conceptually different from Hofstede's more established dimensions. Despite these differences, the two frameworks have many conceptual and measurement overlaps, which means that their effects on consumer ethnocentrism must be tested separately to avoid collinearity problems. Schwartz (1994, p. 117) argues that his framework is based "on different theoretical reasoning than that of Hofstede's framework"; thus, it makes theoretical sense to test separately the effects of the two frameworks on consumer ethnocentrism. To avoid repetition, we formulate our hypotheses on the basis of Hofstede's model.

Collectivism versus individualism. Individualism–collectivism (Hofstede 1980; Triandis 1995) is one of the key cultural dimensions that juxtaposes cultural contexts in which people are autonomous and independent with cultural contexts in which people are interdependent and duties and norms prescribed by the group determine individual actions. Different mechanisms underlie the connection between ethnocentrism and individualism–collectivism. First, emphasis on conforming with a social identity is more likely in collectivistic societies (Hinkle & Brown, 1990). Group identity and in-group favoritism offers some advantages. Collectivistic societies are characterized by stronger and more stable group identities, which reduces the need of people to identify with new groups. Because the socialization process forces in collectivistic societies forge strong emotional attachments within ethnic groups,

ethnocentrism is likely to be higher in collectivistic societies. Collectivists are most likely to sacrifice their own interests for the group and the common welfare (Hui & Triandis, 1986). Personal interests come after the national interests, putting at the center of one's attention the welfare of the nation. Sharma et al. (1995) also argue that collectivist consumers are more likely to perceive foreign products as a threat to the domestic economy. In contrast to collectivists, individualists are more focused on self-interest and pursuing happiness through successful competition with other individuals (Triandis et al., 1993). Individualists remain emotionally detached to the nation or other groups and make decisions on the basis of personal aspirations. Thus, individualists are less likely to make sacrifices for the benefit of their country or other social groups. Indicative of this individualistic characteristic, Gürhan-Canli and Maheswaran (2000) find that while in collectivist cultures positive evaluations of domestic products are developed regardless of product quality, in individualist cultures favorable evaluations of domestic products occur only when the product is perceived as superior. The increased significance of self-interest in individualistic cultures drives this finding. Limited empirical evidence has indicated (Javalgi et al., 2005) a negative relationship between individualism with consumer ethnocentrism. In other words, the more individualistic a culture is, the lower consumer ethnocentrism will be.

As we mentioned previously, there is a conceptual overlap between Hofstede's (1980) individualism and Schwartz's (2003) affective and intellectual autonomy. Steenkamp's (2001) empirical analysis indicates that Hofstede's individualism loads to the same factors as Schwartz's embeddedness (negatively), affective autonomy, and intellectual autonomy. Schwartz (1994) and Smith et al. (2002) confirm that the four values are intercorrelated. Accordingly, we expect the postulated negative relationship between individualism and consumer ethnocentrism to hold for Schwartz's affective autonomy and intellectual autonomy and embeddedness (positive relationship).

H1: Cultures high in individualism have lower levels of consumer ethnocentrism.

Masculinity versus femininity. Hofstede (1986) defines masculinity as an identification with and respect for power and the pursuit of wealth, whereas femininity is associated with sympathy and respect for beauty and quality of life. Femininity embodies “patience”, “courtesy”, and “kindness” (Hofstede 1991, p. 163), whereas masculinity is related to the need for achievement and success, placing less priority on interpersonal relationships. According to social identity theory (Tajfel & Turner, 1979), people strive for positive social identities as a way to maintain positive self-esteem and a sense of achievement and self-enhancement. In intergroup comparisons, individuals positively differentiate their in-group against other groups to protect their self-esteem and to achieve self-enhancement.

Placing masculinity in the context of consumer ethnocentrism, Yoo and Donthu (2005) find a positive relationship between the two concepts. Their study indicates that people high in masculinity tend to be more ethnocentric. Yoo and Donthu (2005) explain this finding by emphasizing the link between masculinity and assertive views; people high in masculinity are more likely to embrace patriotic messages, such as “Buy American” campaigns, which increases their observed consumer ethnocentrism levels. In other fields of inquiry, Leong and Ward (2006) report that masculine cultures are less tolerant of foreigners and immigrants. There is a conceptual overlap between Schwartz’s (1994, 2006) mastery value and Hofstede’s (1980, 2001) masculinity dimension, and both have a clear instrumental orientation (Schwartz, 1994, 2006). The connection between the two values is empirically confirmed in several studies, including Schwartz (1994), Steenkamp (2001), and Smith et al. (2002). Thus, the effects on consumer ethnocentrism should be similar. On the basis of the foregoing discussion, we postulate that masculinity (or low femininity) is associated with higher ethnocentrism.

H2: Cultures high in masculinity have higher levels of consumer ethnocentrism.

Uncertainty avoidance. According to Hofstede (2001) uncertainty avoidance addresses the degree to which individuals feel threatened by uncertainty. People or cultures high in uncertainty avoidance tend to behave rigidly and try to minimize uncertainty by controlling the environment or certain situations. On the contrary, people and cultures low in uncertainty avoidance are more able to face uncertainty with less stress and discomfort. Schwartz (1994) and Steenkamp (2001) show that Hofstede's (1980) uncertainty avoidance is highly correlated with Schwartz's (2003) harmony.

Related, Hogg's (2007) uncertainty-identity theory extends social identity theory. According to Hogg (2007), self-uncertainty is a key factor that increases individuals' identification with groups. Group membership or belongingness helps individuals reduce feelings of uncertainty. Meta-analytical evidence (Bettencourt et al., 2001; Buhl, 1999) supports the theory and confirms that the desire to reduce uncertainty may lead to in-group favoritism. Accordingly, Hofstede's (1980, 2001) uncertainty avoidance is the preoccupation of individuals to reduce uncertainty to get closer to their in-groups and foster in-group favoritism. In line with this reasoning, Yoo and Donthu (2005, p. 17) argue that consumers high in uncertainty avoidance are less likely to accept the "market condition in which domestic products and imports compete with each other". Foreign products and competition are both sources of uncertainty and departures from the familiar. Trying to avoid uncertainty, people are expected to show resistance to imported products due to increased unfamiliarity and, thus, uncertainty. Inglehart et al. (2006) highlight that uncertainty can lead to higher in-group solidarity, intolerance of foreigners, and xenophobia. Thus, cultures with high levels of uncertainty avoidance are more likely to have increased consumer ethnocentrism.

H3: Cultures high in uncertainty avoidance have higher levels of consumer ethnocentrism.

Long- versus short-term orientation. Hofstede et al (2011) added long- versus short-term orientation to address the differences observed in cultures with respect to their tendencies toward and view of the future. Long- and short-term orientation is about connecting the past to the present and the future. Cultures with a short-term orientation respect tradition, emphasize the fulfillment of social obligations, and protect traditions. Contrary to the aforementioned dimensions, there is no equivalent value to long-term orientation in Schwartz's (1994) framework. In short-term orientation, protecting "face" is a key cultural quality. Scheepers et al.'s (1989) study of cultural patterns of ethnocentrism in the Netherlands shows that individuals high in ethnocentrism also experience more pressure to conform to norms and higher cultural conservatism. Empirical evidence suggests that traditionalism (a focus on maintaining or resisting changes to traditions and traditional values) is linked to ethno-cultural group identification (Duckitt et al., 2010) and in-group favoritism (Boski et al., 2004). In contrast to short-term-oriented cultures, long-term-oriented cultures tend to be more dynamic in their thinking and behavior and embrace a sense of thrift for the future. Following from this principle, long-term cultures are expected to accept the dynamic nature of markets and consequently show more tolerance toward imported goods.

H4: Cultures high in short-term orientation have higher levels of consumer ethnocentrism.

Egalitarianism. Egalitarianism in Schwartz's (1994) cultural framework, though conceptually similar to power distance, is one of the three values that did not correlate with any of Hofstede's (1982) values in Steenkamp's (2001) study. As such, we examine egalitarianism separately. "Egalitarianism values are the culture-level parallel to individual-level universalism values" (Schwartz, 2007, p. 153) The acceptance of moral equality among people is a keystone of egalitarian cultures (Schwartz, 2006). Cooperation, concern for the

welfare of all people, and a willingness to work for the public good are principles on which people in egalitarian cultures are socialized from an early age. Egalitarian cultures are notable for their focus on equality, responsibility, social justice, honesty, and altruism. As Schwartz (2007, p. 173) succinctly explains, “egalitarianism values refer to a cultural emphasis on preserving the social fabric by voluntarily transcending selfish interests and promoting others’ welfare”. As such, egalitarianism values are found (Schwartz, 2007, p.173) to be positively related to (1) accepting “others” (immigrants or minorities), (2) higher interpersonal trust, and (3) viewing all types of others—“including those beyond the in-group—as moral equals”. Schwartz’s (2007) results corroborate Leong and Ward’s (2006) findings that egalitarianism is positively related to multiculturalism and the acceptance of minorities and out-groups. As such, we expect that egalitarian values are negatively linked to consumer ethnocentrism.

H5: Cultures high in egalitarian values have lower levels of consumer ethnocentrism.

Economic Conditions

Economic development. A country’s economic development is likely to affect the emergence of ethnocentric tendencies. Dunbar (1987, p. 52) suggests that “it is not difficult to imagine that there will be ecological conditions that mitigate against outright ethnocentrism. Conditions of economic superabundance are likely to relax the pressures in its favor, thereby allowing other factors to militate in favor of other patterns of behavior. Increasing shortages of resources are likely to encourage the development of ethnocentric tendencies”. Dunbar’s (1987) ideas are close to Sherif’s (1966) realistic group conflict theory, which proposes that scarcity of resources can encourage competition with out-groups. Hruschka and Henrich (2013) find that in societies that struggle to provide basic human needs (i.e., offer low material security), people show more in-group favoritism. Resource scarcity and competition for resources is lower in

economically developed countries, which we expect to alleviate pressures that lead to ethnocentrism. Robinson's (2006) review of the relevant literature reveals a positive correlation between economic development and nonauthoritarian views. Based on this discussion, we hypothesize the following:

H6: The higher the level of a country's economic development, the lower are the levels of consumer ethnocentrism.

Economic growth, trade deficits, and unemployment. As we mentioned in the introduction, according to Staub (1979), "difficult life conditions" may frighten individuals by threatening their way of life, which can lead to in-group favoritism at the expense of the out-group. Longitudinal, experimental correlational, and meta-analytical evidence (Cantal, 2015; Dotty et al., 1991; Jost et al., 2003) suggests that a period of social and economic threat can increase authoritarianism and trigger a shift to conservatism. Overall, the effects of economic threat were particularly strong (Duckit & Sibley, 2010). Quillian (1995, p. 586) also provides empirical evidence from 12 countries that prejudice against out-groups is a "response to threats to established group privileges, which are not necessarily linked to the individual interests of group members". The study shows that when economic conditions were poor, bias against out-groups was high. Similarly, McLaren (2003) indicates that high levels of realistic threat in 17 European countries were related to antiforeign attitudes. Various theories have been used to explain the link between threat and in-group bias. Social identity theory suggests that threats strengthen identification with the in-group (Branscombe et al. 1999; Jetten et al., 2001). Realistic conflict theory (LeVine & Campbell, 1972; Sherif & Sherif, 1979) also proposes that competition over resources or power increases intergroup tension and in-group bias. Threat links to consumer ethnocentrism are examined in various studies (Sharma et al. 1995; Rhiney, 2011) and are included in the measurement scale. When any country perceives the threat of

competition from outsiders or thinks it is under attack, “foreignness” triggers negative feelings, resulting in the increase of nationalism and ethnocentrism (Sharma et al., 1995).

Based on the items included of the CETSCALE, three economic conditions might pose particular threats: slow or negative economic growth (i.e., recession, economic stagnation), high unemployment, and high trade deficits. Under such conditions, the threat of losing jobs or of income reduction is more palpable and the urge to protect the national economy from any threats is higher. An increase in imports evidenced by higher trade deficits is more likely to stir up protectionist impulses and negative attitudes toward foreign products. Furthermore, foreigner brands in traditional product categories may be viewed as threats to the nation’s cultural identity and collective self-esteem (Morris et al., 2011). Under these economic conditions, individuals may feel a higher need to show solidarity with their countrymen and protect the country from the invasion of imports and the impact on gross domestic product (GDP) growth, employment, and cultural identity. Formally, we propose the following:

H7: Periods of (a) low levels of economic growth, (b) high levels of unemployment, and (c) high levels of trade deficit are positively associated with consumer ethnocentrism.

Ethnic Diversity

It is difficult to appreciate ethnocentrism without understanding the boundaries of the in-group it is based on. According to self-categorization theory (Turner et al, 1987), shared in-group norms (which are triggered when a group category becomes salient) determine the content of the group’s identity. These shared group norms shape the group members’ beliefs, including attitudes toward the out-groups and out-group derogation. Conventionally, in the field of consumer ethnocentrism, national identification is considered the basis of bias in favor of national products at the expense of the products from other nations. It is not easy to determine who is included in the in-group and who is excluded. In-group boundaries are subjectively delineated. For some individuals, first- and second-generation immigrants may

be considered part of the national in-group; for others, this may not be the case. Existing literature identifies two representations of national identity: ethnic and civic identity (Smith, 2001). Ethnic identity is based on common ancestry, culture, language, religion, traditions, and/or race. Individuals are considered legitimate members only if they are part of the dominant ethnic group in the country. Civic identity is based on citizens' institutional commitment and participation, belief in common political principles, and a sense of citizenship and desire or consent to be part of the nation. Anyone who meets those criteria can be considered a member. In general, national identities are based on a combination of civic and ethnic identity elements. Ethnic identity represents exclusive and impermeable boundaries, as people without a common ancestry and heritage can never be considered complete in-group members. The opposite is true for civic identity, which has inclusive boundaries; any citizen regardless his or her ethnic background can be considered an in-group member. Due to its exclusivity, a stronger ethnic (vs. civic) representation of national identity is expected to be associated with stronger ethnocentric tendencies.

Pehrson et al.'s (2009) study highlights that the relationship between national identity and prejudice is stronger in countries in which national identity is predominantly represented by ethnicity. Conversely, prejudice is weaker in countries in which national identity is predominantly civic. It appears that strong national identification cannot, by itself, explain negative attitudes toward out-groups, as it depends on the relative strength of the ethnic and civic identity components. In countries in which population is ethnically homogeneous, ethnic identity overlaps with national identity. Given the exclusionary character of ethnic identity, ethnocentric tendencies are likely to be stronger in these societies. When countries are ethnically diverse, the basis of ethnocentrism will be civic identity, which connects different ethnic groups and provides them with a national identity. Because civic identity is more inclusive, it is less likely to lead to strong ethnocentrism. Feather (1995) suggests that

Australians whose parents are born in Australia have stronger identification with their country (i.e., civic identity) and higher preference for Australian products than Australians whose parents were born outside the country. Similarly, Hooghe et al.'s (2007) study provides some evidence that ethnocentrism is lower in ethnically diverse European societies. We hypothesize the following:

H8: Ethnically diverse countries have lower levels of consumer ethnocentrism.

METHODOLOGY

To test the hypotheses, we identified and collected data from empirical studies on consumer ethnocentrism. We did not include studies with obvious methodological flaws that did not report sufficient information on methodology or numerical information on the CETSCALE scores. In particular, we used a combination of three approaches: (1) bibliographical database searches (ABI/INFORM, EBSCO, Ovid, ScienceDirect, Sage Online, and Google scholar) using the term “consumer ethnocentrism”, (2) reference lists of reviews and studies on consumer ethnocentrism, and (3) citations from Shimp and Sharma’s (1987) original article on consumer ethnocentrism from the Social Science Citations Index. Inclusion criteria for the studies were as follows: First, the study needed to have used Shimp and Sharma’s (1987) CETSCALE as a measure of consumer ethnocentrism. We excluded studies using other measurement scales of consumer ethnocentrism. Second, the national background of the sample used had to be stated explicitly. We excluded studies that used immigrant samples. Third, sufficient information to estimate effect sizes for consumer ethnocentrism had to be available in the paper.

In total, we identified 227 academic papers that used the CETSCALE. Of those, 126 papers (reporting 240 studies with CETSCALE scores) fulfilled all three inclusion criteria. However, 43 of the identified papers did not report standard deviation scores. We retained

them following Weir's (2018) advice against the omission of these studies. We performed multiple imputations of missing standard deviations using the Rubin and Schenker's (1991) approach with the metagear R program (see Lajeunesse, 2016). Before imputation, we checked the pattern of missing standard deviations in relation to study characteristics and sample size, as Idris and Robertson (2009) recommend. We found standard deviations to be missing completely at random (Little's MCAR test $\chi^2(7) = 9.373, p = .227$), fulfilling Idris and Robertson's (2009) criteria for imputation. We used sensitivity analysis of different imputed values, which revealed no changes in the reported meta-regression results.

The data represented a sample of 57 countries from different areas around the globe and all economic development classifications, providing a high level of cultural variation for testing the hypotheses. The aggregate sample size of all studies combined was 59,134 individuals. We calculated the averages so that they would be comparable. We made adjustments for the number of points in the scale used. In particular, five-point, seven-point, and nine-point scales were used in the studies identified. Because seven-point scales were the most common, we adjusted averages to that of a seven-point scale.

Study Characteristics

We included the following characteristics: (1) year of publication of the study, (2) quality of the publication, (3) a dummy for the use of a consumer or student sample, (4) CETSCALE version used (number of scale items), and (5) scale points (five-, seven-, or nine-point scales). The quality of the publication was based on Hartzing's (2020) comprehensive journal quality list. Of the reported rankings in Hartzing's list, the Chartered Association of Business Schools Academic Journal Guide ranking (from 1 to 4*) provided greater discrimination and a more comprehensive list of journals. We used the ranking scale from 1 to 4 as reported. However, to make the analysis possible, we recoded journals classified as 4* as 5. We coded publications in journals not available in Hartzing's list or working papers as 0.

A meta-analysis of the reported Cronbach's alphas using metafor R module (Vichetbauer, 2010) revealed a size effect of .889 (95% confidence interval [CI] = .878 and .901). The attendant z-score (160.195) was significant ($p < .001$). A meta-regression analysis of Cronbach's alphas (as per Bonett, 2010) with the study characteristics (described previously) revealed only a significant, positive relationship with the scale used ($\gamma = .006, p < .001$). More specifically, scales with larger number of items have higher reliabilities.

Country-level indicators

Cultural dimensions. We used country scores for all of Hofstede et al.'s (2010) six cultural orientations (power distance, collectivism, masculinity, uncertainty avoidance, long-term orientation, and indulgence) and Schwartz's (1994, 2006) seven values (i.e., harmony, embeddedness, hierarchy, mastery, affective autonomy, intellectual autonomy, and egalitarianism). Although only four of Hofstede's dimensions (or Schwartz's corresponding cultural values) were hypothesized to have an effect on a country's level of consumer ethnocentrism, we included the remaining cultural dimensions in the study as control variables. We retrieved country scores from Hofstede et al. (2010) and Schwartz (2006).

Economic variables. We used GDP per capita (based on purchasing power parity [PPP]) to assess the level of economic development. GDP per capita (PPP-based) is GDP converted to international dollars using PPP rates and divided by total population. The use of the PPP-based measure allows for country comparability. Because GDP per capita (PPP-based) changes over the years, we deemed a measure of the GDP at the time consumer ethnocentrism was assessed to be more appropriate. However, information about the time a study was completed is not reported in the published articles. For that reason, taking into account the academic publication time lag, we calculated the average GDP per capita (PPP-based) of the five years preceding the year of publication. We obtained data from the World Bank (2020) database. Similarly, we used the average score of annual GDP per capita growth, current account balance (% of GDP),

and unemployment (% of total labor) recorded in the five years preceding the year of publication to assess economic growth, trade deficit, and unemployment rate. We calculated GDP per capita growth and current account balance (% of GDP) data from World Bank's (2020) database. We obtained unemployment data from the International Labour Organization (2019).

Ethnic diversity. For ethnic diversity, we used the index of ethnic fractionalization, which is the most commonly used measure of ethnic heterogeneity and assessed the probability of two randomly selected individuals in society belonging to different ethno-linguistic groups. Because ethnic diversity changes over the years, we calculated the average score of ethnic fractionalization in the five years preceding the year of the study's publication. We retrieved data from the Historical Index of Ethnic Fractionalization (Drazanova, 2019). The index provides data from 1945 to 2013. For more recently published articles, for which an average of years was impossible to calculate, we used the latest figures of ethnic fractionalization.

Meta-Analytical Procedure

Meta-analytical procedures can be used for any reported statistical metrics. A meta-analysis of means, which we use here, is helpful for explaining contextual effects (Lipsey & Wilson, 2001; for examples, see Fischer & Mansell, 2009). Like any meta-analytical study, this paper tries to establish (1) the overall effect size (in this case, the level of consumer ethnocentrism), (2) the variability of consumer ethnocentrism across countries, and (3) whether economic, ethnic diversity, and culture indicators influence consumer ethnocentrism.

A meta-analysis of published data and country estimates can answer important questions about the relationship of consumer ethnocentrism to culture, economic conditions, and ethnic diversity. For our purposes, a multilevel mixed-effects model is preferable to a fixed-effects model (Lipsey & Wilson, 2001). Fixed-effects models assume that samples come from the same population, whereas random-effects models assume that studies are randomly drawn from

a larger population of studies. Mixed-effects models combine both approaches as they estimate both subject-level and study-level variation. The mixed-effects model has an advantage over the random-effects model in that it tests whether study variability is systematic and can be explained by context variables beyond random variation (see Konstantopoulos & Hedges, 2004). With mixed-effects models, findings can be generalized beyond the sample of studies included in the meta-analysis because studies are assumed to be random samples from a larger population of studies. We employed a multilevel approach because studies are nested within countries. To account for this nesting, we used a three-level model to control for dependencies with countries; we set effect sizes to Level 1, study characteristics to Level 2, and countries to Level 3. We followed Pastor and Lazowski's (2018) recommendations on multilevel meta-analysis. We conducted the meta-analysis in R with the metafor package (Vichetbauer, 2010), using a multilevel random-effects model (Assink & Wibbelink 2016). We used the restricted maximum likelihood estimate to estimate all model parameters, and we used the Knapp and Hartung (2003) model for testing individual regression coefficients of the meta-analytic models and for calculating the corresponding confidence intervals.

RESULTS

Average CETSCALE Scores Across Studies

We performed all computations in R, using a variety of packages, including metafor (Vichetbauer, 2010), robumeta (Fisher, et al 2017), and clubSandwhich (Pustejovsky, 2020). We calculated the weighted average CETSCALE score across the 240 studies identified using as weight the N/s^2 , where N is the sample size of the study and s is the standard deviation of the average (Lipsey and Wilson 2001). The average was 3.899 (with a 95% confidence interval ranging from 3.895 to 3.906 for the fixed model). The attendant z -score (2079.15) was significant ($p < .001$). The average scores were highly heterogeneous Cochran's Q

($Q(239) = 240,018.25, p < .001$), with an I-squared of 99.7%. According to Higgins et al. (2003), I-squared values of 25%, 50%, and 75% represent low, moderate, and high heterogeneity, respectively. In a model in which study heterogeneity is large enough to dominate the standard errors, we effectively have a random sample of studies that are more or less identically distributed. As such, the between-study variation tau-squared (Der Simonian-Laird estimate) was 0.827. The average score using random model estimation was 3.553 (with a 95% CI of 3.445 to 3.657), and we obtained a significant z-score (67.39; $Q(239) = 240,018.25, p < .001$; I-squared = 99.9).

Because many estimates of consumer ethnocentrism for different countries come from the same study, elements of these studies are similar to one another, leading to correlated parameters. Thus, we used two additional estimations of the overall effect. The robust standard error procedure (using *robumeta*) and the multivariate model that accounts for correlated parameters for both estimates coming from the same study and estimates of the same country (using *metafor*). We report the results in Table 1. The estimates of both models had high heterogeneity. The I-squared for the robust estimate was 99.9%, and the tau-squared was 0.801. For the multilevel mixed-effects model, the overall effect for consumer ethnocentrism was 3.528, with a statistically significant Q ($Q(239) = 72,685.09, p < .001$). We include three levels of analysis in the study: size effect, the study, and the country level. The variance at each level of analysis was statistically significant. A decomposition of the observed variance reveals that 0.001% of the variance was sampling variance, 25.85% of the variance was within-study variance, 55.58% of the variance was between-study variance, and 18.54% of the variance was between-country differences. The four uncorrected estimates of consumer ethnocentrism scores suggest an average of 3.527 to 3.899 (see Table 1).

Publication bias is the result of researchers and editors reporting and publishing only significant findings or results that support stated hypothesis. In this case, publication bias

may come from the tendency not to publish results from small-sample studies. We used two publication bias techniques as a sensitivity analysis: (1) Egger's regression test and (2) Begg and Mazumdar's rank-correlation test. Statistical significance in either of the two tests is indicative of publication bias. Both tests of publication bias (Egger's test and Begg and Mazumdar's rank correlation) were statistically significant, suggesting that an adjusted effect size would be appropriate. The trim-and-fill approach (using the R0 estimator, as proposed by Duval [2005]) estimated six missing studies at the left side of the funnel plot and marginally modified the CETSCALE score (3.495). Heterogeneity for the adjusted estimate of the CETSCALE score was significant ($Q(245) = 54,566,059.9, p < .001$). However, the trim-and-fill method is used more as a sensitivity test than for identifying the overall CETSCALE score.

Insert Table 1 about here

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Country Analysis

As we mentioned previously, 18.54% of the total variance in CETSCALE average scores is attributable to country differences. A meta-analysis of group differences identified significant differences across countries ($Q(55) = 3002.5, p < .001$). Table 2 provides a list of the average CETSCALE scores (estimated on the random-effects model) for each country. At the low end of CETSCALE scores were Iceland, Sweden, and Israel, with average scores of 2.295, 2.340, and 2.762, respectively. Mozambique, Peru, Zimbabwe, and Italy recorded the highest scores (5.800, 5.025, 4.901, and 4.754 respectively).

Insert Table 2 about here

Multilevel Analysis

We performed a multilevel mixed-effects model analysis using metafor R package (Pastor and Lazowski, 2018). The three levels of analysis for which intercepts are modeled to be random are as follows: (1) the effect size level, (2) the study level, and (3) the country level. Effects are weighted by sample size, with smaller samples having less influence on the overall score. We tested the following models: Model 1 examines study characteristics (e.g., year of publication, journal quality, consumer or student sample, scale version, scale points) effects on CETSCALE scores. Model 2 investigates the impact of study characteristics and economic conditions (e.g., economic development, trade deficit, annual economic growth, of unemployment) on CETSCALE scores. Model 3 examines the effects of study characteristics and ethnic diversity on CETSCALE scores. Model 4 assesses the effects of study characteristics, economic conditions, and ethnic diversity on CETSCALE scores. Model 5 examines the impact of study characteristics and Hofstede's cultural orientations on CETSCALE scores. Model 6 includes the effects of study characteristics, economic conditions, ethnic diversity, and Hofstede's cultural orientations on CETSCALE scores. Model 7 examines the effects of study characteristics and Schwartz's cultural values on CETSCALE scores. Model 8 includes the effects of study characteristics, economic conditions, ethnic diversity, and Schwartz's cultural values on CETSCALE scores. As we mentioned previously, we tested Hofstede's dimensions and Schwartz's values separately because they are grounded in different theoretical reasoning and because their measures are intercorrelated, suggesting collinearity problems (Steenkamp, 2001).

Insert Table 3 about here

When we estimated the effects of study characteristics, the only significant effect was for the use of consumer samples (see Models 1–8 in Table 3). Consumer samples, as opposed to student samples, yielded higher CETSCALE means. In particular, the CETSCALE mean for consumer samples was 3.556 (95% CI: 3.368 to 3.743), and for student samples, it was 3.476 (95% CI: 3.0917 to 3.8608). This may be due to the higher education levels and younger age of the students. Both characteristics have been linked to low levels of consumer ethnocentrism (Shankarmahesh, 2006). Studies based on student samples represented 25.8% of the studies (62 studies) analyzed and 20.5% of the pooled sample of respondents (12,151 respondents).

Testing the linear effects of either economic conditions or ethnic diversity individually, we find only a significant, negative effect for economic development (Models 2 and 4). When we entered cultural dimensions in the same model (Models 6 and 8), the effect of economic development became insignificant ($-0.007, p = .283$ and $-0.009, p = .155$). Collinearity was not a problem that affected the robustness of the regression coefficients, as all variance inflation factors (VIFs) in both models were below 3. However, individualism (and affective autonomy in Model 8) are positively influenced by economic development (Inglehart, 1997; Santos et al., 2017). As societies develop economically, they become more individualistic, suggesting a mediating effect. An examination of the correlation matrix of the predictor variables in this study reveal that both individualism ($0.385, p < .05$) and affective autonomy ($0.428, p < .05$) are positively correlated with GDP per capita (economic development).

When cultural dimensions are entered individually (Models 5 and 7), Hofstede's individualism, masculinity, and long-term orientation are statistically significant (model 5). Model 7 examines separately the effects of Schwartz's values on CETSCALE scores. An examination of VIFs indicate that embedded-ness and intellectual autonomy are highly correlated with the other variables. After the removing both variables in Model 7, VIFs are

below 3 (the hierarchy VIF had the highest value: 2.487). In Model 7, only affective autonomy (which corresponds to Hofstede's individualism) was statistically significant.

To check the effects of the removed variables (intellectual autonomy and embeddedness), we analyzed two models that included study characteristics and each of the two cultural values separately. The results confirm a negative effect for intellectual autonomy ($\gamma = -0.503$, $p = .016$) and a positive effect for embeddedness ($\gamma = 0.659$, $p = .004$). Finally, Models 6 and 8 include all variables and reveal that the effects of individualism, masculinity, and long-term orientation remain significant (Model 6), whereas the effects of affective autonomy (Model 8) become marginally significant (-0.408 , $p = .061$). The highest VIF score for Model 6 is 2.384 (individualism), and for Model 8, the highest VIF is 2.804 (hierarchy), suggesting that collinearity is not a problem. We separately analyzed the effects of intellectual autonomy and embeddedness along with all the other variables in Model 8 except for cultural values. The effect of embeddedness remains statistically significant ($\gamma = 0.565$, $p = .039$), and that of intellectual autonomy becomes statistically insignificant ($\gamma = -0.354$, $p = .142$).

Overall, the results provide support for H1 (individualism, Models 6 and 8), H2 (masculinity, Model 6), and H4 (long-term orientation, Model 6). Economic development has a negative effect on consumer ethnocentrism (H6), but this effect is superseded by culture's effect on economic development (see Figures A1–A6 in Web Appendix A). We reject H6 because there are no significant results for the economic conditions. Figures A1–A6 in Web Appendix A use the average meta-analytical scores of CETSCALE of each country to visually depict the patterns of the effects for individualism, masculinity, long-term orientation, affective autonomy and intellectual autonomy on consumer ethnocentrism.

Beyond testing hypotheses, we conducted a post hoc analysis to explore if there are any curvilinear or interaction effects among economic conditions, ethnic diversity, and culture in determining consumer ethnocentrism. The justification of this post hoc analysis lies within

the theoretical argumentation and logic of the hypothesized relationships and examines the interaction effects of the hypothesized constructs. Namely, it checks the extent to which a combination of the economic conditions, cultural values, and ethnic diversity alleviate or amplify the hypothesized effects on consumer ethnocentrism. It has been hypothesized that individualism, femininity, long-term orientation, and low uncertainty avoidance have a negative effect on consumer ethnocentrism. It is plausible, therefore, to theorize that the interaction among these constructs will amplify the effects (e.g., if individualism is combined with femininity, consumer ethnocentrism will be lower). The same argument applies for the interaction among all the constructs in the hypotheses. We created all the possible interaction terms among the constructs of interest and empirically added them to Models 6 and 8. We also formed quadratic terms of each hypothesized construct to check for curvilinear effects.

We used the MuMIn multimodel inference package R (Barton, 2020) to determine which of all quadratic and interaction terms should be selected for addition to Models 6 (i.e., Hofstede's framework) and 8 (Schwartz's framework). MuMIn uses changes in the information criteria fit indices (here, the Akaike information criterion [AIC]) to detect model fit improvements with the addition or removal of different interaction terms. The results indicate four interaction effects to be added to Model 6: (1) individualism \times economic development, (2) economic development \times economic growth, (3) economic development \times trade surplus/deficit, and (4) masculinity \times long-term orientation (see Table 3, Model 9). The respective interaction effects are visually plotted (see Figures 1–5). As Figure 1 shows, when economic development increases, both collectivistic and individualistic cultures' consumer ethnocentrism convergingly declines. Collectivism's positive effect on consumer ethnocentrism is active only in low-income economies. Because we employ a trichotomy of GDP per capita value for visualization purposes, the "low-income economy" category includes countries with a per capita GDP (PPP) of less than \$14,600. The "middle-income

economy” category includes countries with per capita GDP between \$14,600 and \$30,500, and the “upper-income economy” category includes countries with per capita GDP higher than \$30,500 annually (note that the cutoff points differ from World Bank’s economic development classification table). The results appear to support previous studies (Inglehart, 1997; Santos et al., 2017), showing that as economies develop economically, they adopt more individualistic practices. Figure 2 demonstrates that the levels of consumer ethnocentrism remain almost stable at different levels of economic growth for low-income economies. As economic growth picks up, consumer ethnocentrism levels of middle- and high-income economies are slightly reduced. We observe a similar pattern in Figure 3. As the current account of a country improves and the country starts generating trade surpluses, consumer ethnocentrism slightly declines in middle- and high-income economies. However, improvements in the trade balance do not lessen the levels of consumer ethnocentrism in low-income countries.

Finally, the study detects an interaction effect between masculinity and long-term orientation (Figure 4). The masculinity level of a culture has little effect on the levels of consumer ethnocentrism in short-term-oriented societies. Its effect is evident only in long-term-oriented societies. More specifically, long-term-oriented societies have lower levels of consumer ethnocentrism only when they are feminine. In masculine long-term-oriented societies, levels of consumer ethnocentrism reach those of short-term-oriented societies.

Insert Figures 1-5 about here

A similar MuMIn analysis for Model 8 (Schwartz’s framework) indicates the addition of three interaction effects (to Model 8). Two are the same as those mentioned previously (Model 9) because economic development, economic growth, and trade surplus/deficit are

part of both Models 7 and 8. Specifically, the economic development \times economic growth and economic development \times trade surplus/deficit interaction terms emerged as additions to Model 8 (see Model 10). However, MuMIn analysis detected a marginally significant interaction effect for Model 8: egalitarianism \times ethnic diversity. The Figure 5 plot indicates that societies low in egalitarianism become higher in consumer ethnocentrism than egalitarian societies when ethnic diversity increases. According to Schwartz (2007, p.173), “egalitarianism values refer to a cultural emphasis on preserving the social fabric by voluntarily transcending selfish interests and promoting others’ welfare”. As such, egalitarianism values are positively related to (1) accepting “others” (immigrants or minorities) in the country, (2) higher interpersonal trust, and (3) viewing all types of others, “including those beyond the in-group—as moral equals” (Schwartz, 2007, p.173). Schwartz’s (2007) results corroborate Leong and Ward’s (2006) findings that egalitarianism is positively related with multiculturalism and acceptance of minorities in a society. Considering these findings, it appears that ethnic diversity reduces consumer ethnocentrism levels only in societies that espouse egalitarian values. This provides partial support to H8. It seems that ethnic diversity and the presence of minorities in a country increase consumer ethnocentrism levels in nonegalitarian societies.

DISCUSSION AND CONCLUSIONS

Our results provide insightful information regarding the factors that drive consumer ethnocentrism across countries. Considering various cultural, economic and ethnic diversity factors, we observed a consistent and robust finding that cultural values of individualism, masculinity, and long-term orientation were the best predictors of consumer ethnocentrism. Controlling for study effects, economic development, adverse economic conditions (deficits,

low growth/recession and unemployment), and ethnic diversity explains little. However, some important interactive effects emerged among these variables.

Despite some academics' emphasis on economic threats (e.g., Sharma et al., 1995), their effects on consumer ethnocentrism vary according to the level of a country's economic development. One theoretical underpinning of consumer ethnocentrism is that in-group identification is strengthened under threatening conditions, which in turn triggers consumer ethnocentrism (Branscombe et al. 1999; Jetten et al. 2001). This argument requires some qualifications, considering our findings. The effects of recessionary and slow economic growth (a threatening condition) on consumer ethnocentrism are evident in high-income societies but not in middle- and low-income ones. Under conditions of negative economic growth, high-income economies display high levels of consumer ethnocentrism, which dissipate as economic growth increases. We observe the opposite for low-income societies: consumer ethnocentrism increases as economic growth increases (Figure 2). A possible explanation is that economic growth may be export-driven (typical for many developing economies), resulting in an increase in consumer confidence in the national products and the need to secure the accrued benefits of export-driven economic growth rates. This explanation is supported by the interaction of economic development and current account balance on consumer ethnocentrism (Figure 3). For high- and middle-income economies, trade surpluses have a weak negative effect on consumer ethnocentrism. For low-income economies, trade surpluses increase consumer ethnocentrism.

As we explained, the export successes of less wealthy nations may boost their self-confidence and muster social support for national products. Rising levels of unemployment did not have any effect on consumer ethnocentrism. It appears that the attribution of high unemployment to increases of imported products is tenuous or precarious in the minds of the consumers. In any case, it is not sufficiently compelling to trigger higher levels of consumer

ethnocentrism. It appears that Staub's (1999) argument that adverse conditions can lower group self-esteem may operate in the opposite way. Leaving such difficulties in the past may boost group self-esteem. The enhancement of self-esteem is a key motive behind positive social identities and attachment to groups (Tajfel & Turner, 1979) The results are consistent with Crocker et al.'s (1987, 1990) findings that high collective self-esteem leads to in-group bias which strengthens positive social identity and increases in-group bias. When collective self-esteem is low, people tend to disassociate from their in-groups. When collective self-esteem is high, in-group favoritism and out-group derogation increase (Crocker et al. 1987, 1990) Accordingly, in-group bias is instrumental for individuals with high collective self-esteem to create, strengthen, and preserve positive social identity. In this context, the achievement of high economic growth and trade surplus is catalytic for consumer ethnocentrism.

Culture seems to be the dominant force behind consumer ethnocentrism. To the extent that individuals are able to act autonomously, removed from group norms, they will be less ethnocentric when it comes to consumption. Analysis of the interaction effects provides some insights into the relational patterns between individualism and consumer ethnocentrism. The inflating effects of collectivistic values on consumer ethnocentrism are active only at low levels of economic development. As economies grow, even if they remain culturally collectivistic, the levels of consumers ethnocentrism fade. There may be two explanations for this: The first explanation is associated with the measurement of culture by Hofstede (1980), which lags the measurements of economic development by the World Bank (2020) and may not capture the decaying effect of economic development on collectivistic values (Santos et al. 2017). Second, economic development may suppress the effect of collectivistic values when it comes to issues related to consumption or allegiance to the economic interests of the in-group. The second explanation is more plausible, as economic development (GDP per

capita) is a significant predictor of consumer ethnocentrism when examined on its own, which is consistent with findings in previous studies (e.g., Robinson, 2006). However, the effect disappears when both Hofstede's individualism and Schwartz's values enter the equation. It appears reasonable to accept the view that increased economic development leads to more individualism (e.g., Inglehart, 1997; Santos et al., 2017). Accordingly, high levels of economic development in a country may influence ethnocentrism primarily by increasing the levels of autonomy and individual freedom.

The results reveal that cultures that adhere to masculine values such as achievement, assertiveness, and material rewards for success are more ethnocentric. This finding corroborates existing literature, which suggests that masculine societies are more likely to adhere to patriotic messages (Yoo & Donthu, 2005) due to lower tolerance levels toward foreigners (Leong & Ward, 2006). In contrast, feminine societies, in which cooperation, modesty, caring for the less fortunate, and quality of life are more important, tend to be less consumer ethnocentric. In addition, short-term-oriented societies that favor the maintenance of age-old traditions and norms and are suspicious of societal changes tend to be more consumer ethnocentric. More pragmatic long-term-oriented societies that promote thrift and preparation for the future are less consumer ethnocentric, in line with studies that link long-term orientation with an expectation of more dynamic markets and, thus, the acceptance of imports (Yoo & Donthu, 2005). It appears that the effects of the two cultural values interact. While the levels of consumer ethnocentrism remain high in both feminine and masculine societies that are short-term oriented, as hypothesized, the same does not apply for the long-term-oriented societies.

The effects of masculinity seem to dominate those of long-term orientation. Indeed, long-term-oriented societies have low levels of consumer ethnocentrism as predicted, but this applies only when masculinity is low (i.e., when the societies are feminine). When

masculinity increases, the levels of consumer ethnocentrism of long-term-oriented societies increase as well. It appears that the thrift and the future outlook values characterizing long-term-oriented societies capitulate to masculine values when it comes to consumption preferences and loyalties. The study failed to support an effect of uncertainty avoidance on consumer ethnocentrism, challenging Hogg's (2007) uncertainty-identity theory, which suggests that individuals get closer to their group when uncertainty avoidance is high.

The study examined the effects of Hofstede's and Schwartz's cultural values on consumer ethnocentrism at a macro level. Our findings indicate that Hofstede's framework predicts consumer ethnocentrism better than Schwartz's model. However, the effects of the corresponding values of both frameworks are consistent. Specifically, the values of embeddedness, intellectual autonomy, and affective autonomy, which correspond to Hofstede's individualism–collectivism dimension, have a significant effect on consumer ethnocentrism in the expected direction. Similarly, Schwartz's value of harmony, which corresponds to uncertainty avoidance, does not have a significant effect on consumer ethnocentrism. The only inconsistency we find is in that the effects of Schwartz's mastery values on consumer ethnocentrism are insignificant. The value conceptually corresponds to Hofstede's masculinity orientation, which has a statistically significant effect on consumer ethnocentrism. The discrepancy may be attributed to differences in the content of the two constructs. Empirically, the two constructs were only moderately correlated in this study (.329). While mastery is linked to success, achievement, and assertiveness (values emphasized in Hofstede's masculinity dimension), it also focuses on proactive action and mastery of the natural and social forces. The extended boundaries of Schwartz's mastery value might explain the inconsistency.

The findings do not support a direct effect of ethnic diversity on consumer ethnocentrism. It appears that consumer ethnocentrism that is based solely on civic identity is not different

from ethnocentrism based on both ethnic and civic identities (e.g., societies in which civic and ethnic identities coincide). However, the hypothesized effect that ethnic diversity dampens consumer ethnocentrism appears to be valid only in societies characterized by high levels of egalitarianism (i.e., all groups are equal and are tolerant of minorities). For societies with low and medium levels of egalitarianism, increased ethnic diversity exacerbates consumer ethnocentrism. It appears that in ethnically diverse countries where institutions have instilled high egalitarian values, consumer ethnocentrism remains low. However, in less egalitarian societies, ethnic diversity may be seen as a threat and result in higher in-group identification (e.g., Branscombe et al. 1999; Jetten et al., 2001) of the dominant ethnic group. In such cases, consumer ethnocentrism is grounded in a strengthened ethnic identity of the dominant group rather than civic identity. Thus, ethnic diversity is opposite to the hypothesized effects in less egalitarian societies.

The current research provides some additional insights with regard to study characteristics. The age of the study does not affect levels of consumer ethnocentrism, suggesting that there is no declining trend in consumer ethnocentrism that would be expected as a result of globalization and increases in individualism in the past decades (Santos et al., 2017). The quality of the publication outlet and the number of items and points in the scales used also do not affect the reported scores of consumer ethnocentrism. However, the use of student samples seems to negatively influence levels of consumer ethnocentrism, corroborating empirical evidence demonstrating a positive relationship between age and consumer ethnocentrism (e.g., Josiassen, Assaf, & Karpen, 2011; Klein & Ettenson, 1999).

This study makes several contributions. First, in an integrative way, we show that certain dimensions of culture are indeed associated with consumer ethnocentrism. The study relies on evidence from a larger sample of countries and higher levels of both cultural and economic development variance. This finding may help focus future research and minimize

speculation about the cultural determinants of consumer ethnocentrism. Prior research provides some empirical evidence, though diverging, on the existence of the examined relationships, but it has focused on the individual level and small samples of cultures. Small samples and limited variance may be the reason that some of the postulated relationships were not supported in the current study. However, the 57 countries included in this study are a good representation.

Second, in an empirical and more systematic way, we show that the impact of economic factors, as presented in other studies, are not guaranteed. Consumers in countries with lower economic development tend to be more ethnocentric, but this is connected more to individualistic values, growth rates, and trade surpluses in these countries. Harsh economic realities (slow growth or recession, trade deficits, and unemployment) alone do not affect consumer ethnocentrism in the expected way. Their effects depend on the level of a country's economic development. High economic development gives societies a sense of security and may guard against economic threats. Our results suggest that consumer ethnocentrism is more of a cultural phenomenon than an economic one.

The value of our findings lies in a better understanding of the antecedents of consumer ethnocentrism at a macro level. In many cases, consumer ethnocentrism was taken as an exogenous variable, an assumption that may lead to methodological or speculative argumentation problems. Our findings can guide academics to design better cross-cultural studies by taking into account at different stages of the research the effects of relevant cultural dimensions and economic factors. Future studies might also integrate theory on the consumer ethnocentrism consequences and provide a systematic analysis of the main findings in an effort to explain variations in the outcomes of this phenomenon.

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Table 1 Estimates of the overall effect size (mean score) of consumer ethnocentrism

Estimate type	M	95% CI
Uncorrected estimates		
Fixed effect	3.899	[3.895, 3.903]
Random effect	3.553	[3.445, 3.657]
Robust effect	3.500	[3.360, 3.630]
Multilevel mixed effect	3.527	[3.347, 3.709]
Publication bias tests		
Egger's test	t(238) = -2.094,	$p < .001$
Begg and Mazumdar's rank-correlation test	Kendall's tau = 0.126,	$p < .001$
Publication bias corrected estimates		
Trim and fill	3.495	[3.384; 3.606]

Table 2 Meta-analytical estimates of CETSCALE scores by country

Country	Mean score	Standard error	Lower CI	Upper CI	Number of studies	Sample size
Australia	3.446	0.191	3.071	3.821	7	1384
Austria	4.160	0.080	4.002	4.318	1	411
Bangladesh	4.380	0.173	4.040	4.720	1	52
Belgium	3.591	0.434	2.741	4.442	2	1085
Bosnia	3.470	0.115	3.245	3.695	1	140
Brazil	3.062	0.271	2.530	3.594	4	941
Canada	3.120	0.218	2.693	3.546	4	826
Chile	3.587	0.031	3.526	3.649	3	584
China	3.618	0.191	3.243	3.994	27	6223
Colombia	3.247	0.055	3.139	3.356	1	183
Croatia	3.038	0.062	2.916	3.160	2	389
Czech Republic	3.724	0.742	2.270	5.178	3	719
Estonia	3.152	0.061	3.034	3.271	1	179
France	3.786	0.897	2.027	5.545	4	793
Germany	3.524	0.578	2.392	4.656	5	676
Ghana	4.175	0.263	3.660	4.691	2	375
Greece	4.371	0.466	3.458	5.284	3	1565
Hong Kong	3.134	0.414	2.322	3.945	4	1118
Hungary	3.078	0.336	2.419	3.738	3	608
Iceland	2.295	0.084	2.131	2.460	3	337
India	3.823	0.162	3.505	4.141	17	2826
Indonesia	4.161	0.268	3.637	4.686	4	1147
Iran	3.626	0.728	2.200	5.052	2	1365
Israel	2.762	0.219	2.333	3.192	3	360
Italy	4.754	0.258	4.249	5.258	3	667

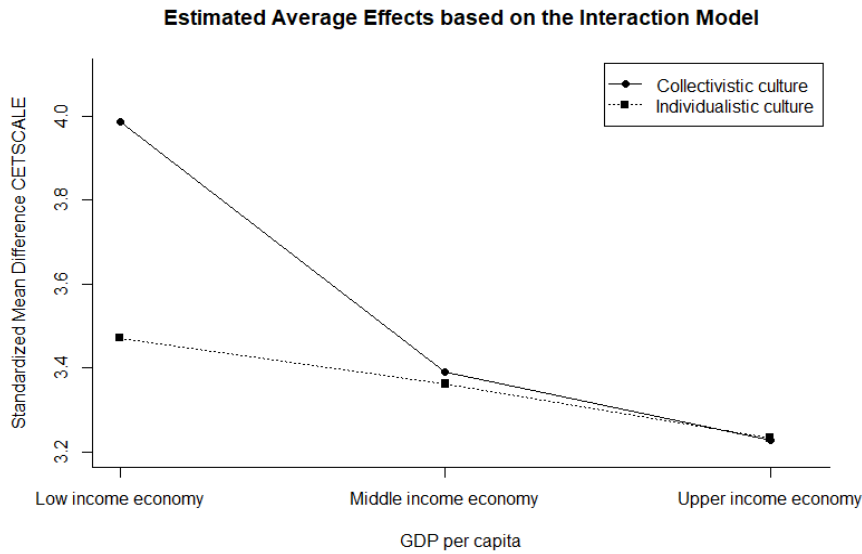
Japan	3.411	0.453	2.522	4.299	6	1579
Kuwait	2.920	0.055	2.812	3.028	1	150
Lithuania	3.510	0.083	3.347	3.673	1	280
Malaysia	3.528	0.121	3.291	3.765	4	919
Malta	3.341	0.071	3.202	3.480	1	131
Mexico	4.205	0.250	3.715	4.695	3	614
Morocco	4.198	0.057	4.087	4.310	1	400
Mozambique	5.800	0.079	5.645	5.955	1	611
Netherlands	3.087	0.259	2.579	3.595	6	1324
New Zealand	4.238	0.580	3.101	5.375	2	548
North Macedonia	2.800	0.042	2.717	2.883	1	232
Norway	3.950	0.066	3.820	4.080	1	189
Pakistan	4.200	0.083	4.036	4.364	1	180
Peru	5.025	0.073	4.882	5.168	1	253
Poland	3.649	0.253	3.154	4.144	4	1623
Russia	3.147	0.226	2.704	3.590	11	2031
Serbia	3.480	0.840	1.833	5.126	2	362
Singapore	3.332	0.453	2.444	4.221	7	1749
Slovenia	2.918	0.041	2.838	2.999	2	507
South Africa	3.743	0.036	3.672	3.814	2	490
South Korea	3.550	0.242	3.075	4.025	9	1591
Spain	3.766	0.167	3.438	4.093	3	580
Sweden	2.340	0.114	2.116	2.563	4	708
Taiwan	3.317	0.165	2.993	3.641	8	1809
Thailand	3.973	0.476	3.040	4.907	3	526
Turkey	3.668	0.384	2.916	4.420	5	1563
United Arab Emirates	3.820	0.100	3.623	4.017	1	200
United Kingdom	3.809	0.209	3.399	4.219	4	1908
United States	3.577	0.110	3.362	3.793	33	10,800
Vietnam	3.963	0.064	3.838	4.089	1	215
Zimbabwe	4.901	0.109	4.686	5.116	1	289

Table 3 Three-level mixed-effects meta-analytic analysis of consumer ethnocentrism

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
Level 1																				
Intercept	40.35	0.124	12.40	0.650	45.37	0.086	17.50	0.528	53.23	0.043	40.087	0.188	40.21	0.132	23.75	0.430	52.621	0.079	26.20	0.361
Level 2																				
Year of publication	-0.018	0.159	-0.004	0.754	-0.021	0.111	-0.007	0.620	-0.024	0.065	-0.018	0.249	-0.019	0.151	-0.010	0.496	-0.024	0.106	-0.013	0.356
Journal quality	-0.030	0.561	-0.020	0.691	-0.027	0.608	-0.018	0.723	0.002	0.975	0.004	0.947	-0.028	0.599	-0.019	0.718	0.003	0.961	-0.009	0.858
Consumer sample	0.337	0.015	0.337	0.014	0.335	0.015	0.334	0.015	0.330	0.019	0.326	0.021	0.347	0.014	0.333	0.019	0.269	0.053	0.315	0.021
Scale used (number of items)	-0.005	0.743	-0.007	0.654	-0.006	0.686	-0.008	0.601	-0.013	0.421	-0.014	0.395	-0.001	0.937	-0.005	0.770	-0.012	0.430	-0.005	0.750
Scale points	-0.012	0.873	-0.008	0.921	-0.013	0.868	-0.008	0.912	0.005	0.952	0.005	0.953	-0.001	0.992	-0.003	0.974	-0.020	0.795	-0.008	0.911
Level 3																				
Economic development			-0.014	0.003			-0.013	0.005			-0.007	0.283			-0.009	0.155	-0.023	0.075	0.000	0.995
Economic growth			0.008	0.680			0.008	0.658			-0.007	0.779			0.004	0.822	0.061	0.083	0.045	0.044
Trade surplus/deficit			-0.006	0.606			-0.008	0.533			-0.006	0.708			-0.014	0.350	-0.051	0.012	-0.043	0.021
Unemployment			-0.015	0.277			-0.018	0.200			-0.008	0.637			-0.012	0.442	0.002	0.885	-0.014	0.311
Ethnic diversity					0.409	0.209	0.310	0.337			0.121	0.754			0.038	0.922	-0.083	0.807	8.608	0.059
Power distance									-0.007	0.209	-0.007	0.193					-0.009	0.092		
Individualism									-0.013	0.001	-0.012	0.006					-0.027	0.000		
Masculinity									0.009	0.022	0.008	0.045					0.034	0.001		
Uncertainty avoidance									0.001	0.830	0.000	0.968					0.001	0.804		
Long term orientation									-0.013	0.001	-0.010	0.014					0.014	0.108		
Indulgence									-0.007	0.103	-0.006	0.186					-0.006	0.190		
Harmony													0.081	0.790	-0.034	0.917			-0.063	0.813
Hierarchy													-0.031	0.899	-0.042	0.870			0.095	0.669
Mastery													0.472	0.396	0.208	0.721			0.301	0.529
Affective autonomy													-0.512	0.012	-0.408	0.061			-0.431	0.023

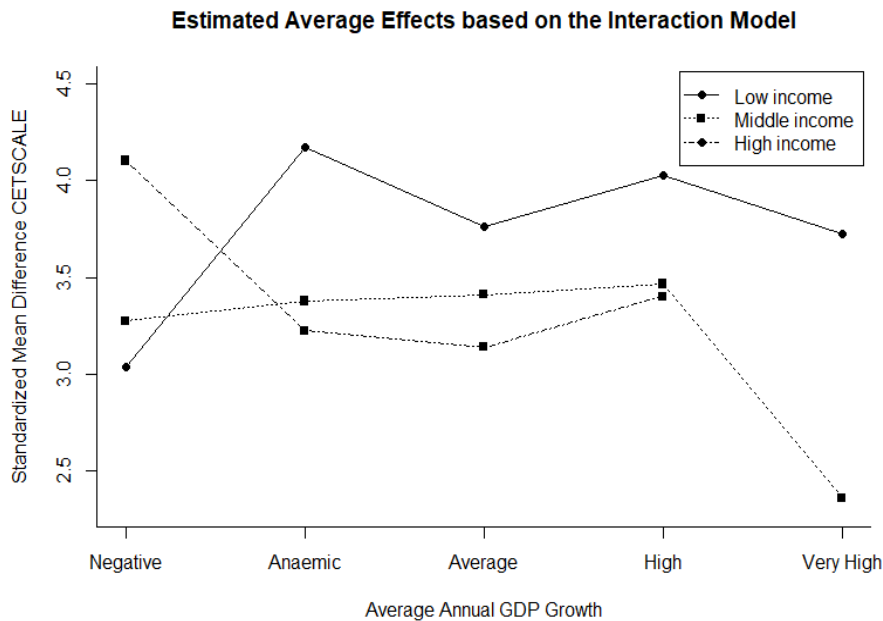
Egalitarianism													0.169	0.652	0.279	0.466			0.947	0.056		
Interaction terms																						
Econ. Develop. × Econ. Growth																			-0.004	0.035	-0.004	0.010
Econ. Develop. × Trade surplus/def																			0.001	0.005	0.001	0.102
Individualism × Econ Develop.																			0.001	0.005		
Masculinity × Long term orientation																			0.001	0.006		
Egalitarianism × Ethnic diversity																					-1.853	0.059
Number of effect sizes	240		240		240		240		232		232		229		229		232		229			
Omnibus test of all coefficients	F(5,234)		F(9,230)		F(6,233)		F(10,229)		F(11,220)		F(16,215)		F(10,218)		F(15,213)		F(20,211)		F(18,210)			
F(df1, df2) value	1.436	0.202	2.400	0.012	1.468	0.189	2.246	0.016	2.907	0.001	2.157	0.007	1.426	0.169	1.374	0.161	3.601	0.000	1.866	0.020		

Figure 1 Interaction effects plot of individualism with economic development



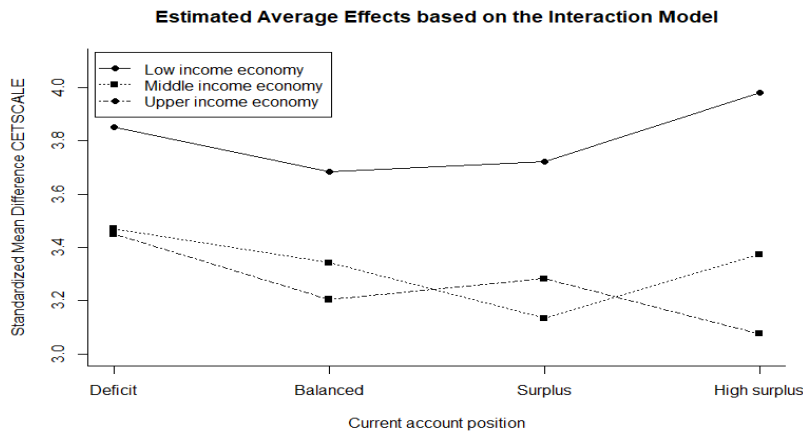
Notes: Cutoff values: collectivistic culture ≤ 50 , individualistic culture > 50 . Low-income economy $\leq \$14,600$, middle-income economy = $\$14,601-\$30,500$, upper-income economy $> \$30,500$ GDP per capita.

Figure 2 Interaction effects plot of economic development with economic growth



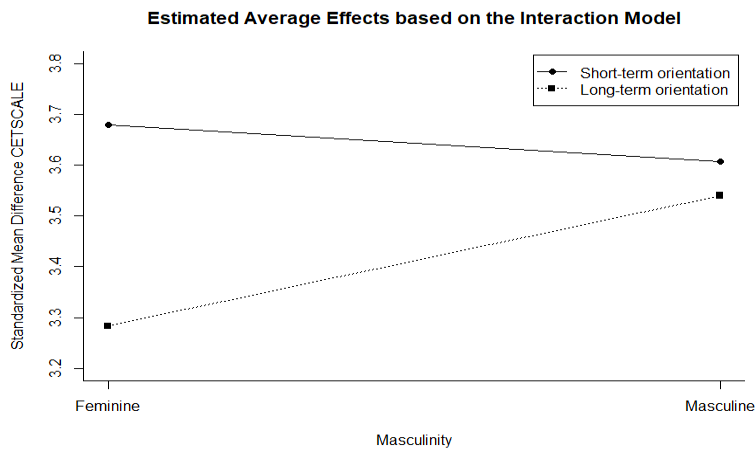
Notes: Cutoff values: Low-income economy $\leq \$14,600$, middle-income economy = $\$14,601-\$30,500$, upper-income economy $> \$30,500$ GDP per capita. Negative growth $\leq 0\%$, anaemic growth = $0.1\%-1.99\%$, average growth = $2\%-3.9\%$, high growth = $4\%-6.9\%$, very high growth $> 7\%$.

Figure 3 Interaction effects plot of economic development with economic growth



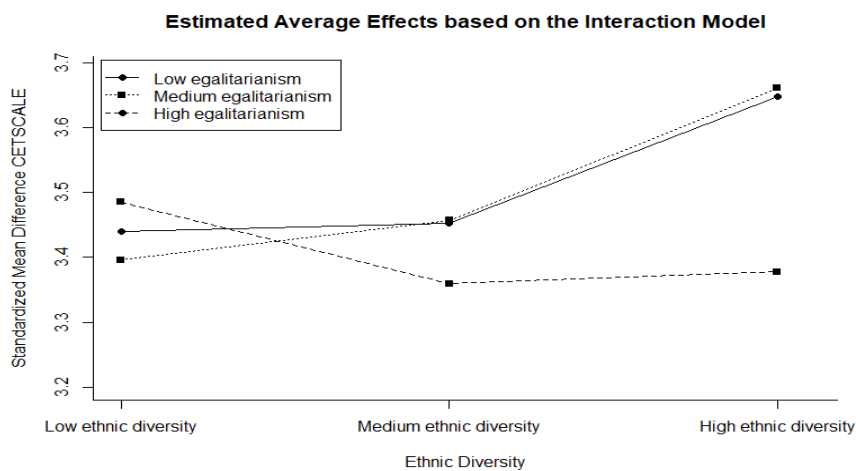
Notes: Cutoff values: Low-income economy \leq \$14,600, middle-income economy = \$14,601–\$30,500, upper-income economy $>$ \$30,500
 GDP per capita Deficit $<$ 0% of GDP, balanced = 0%–1.9% of the GDP, surplus 2%–3.9% of the GDP, high surplus $>$ 4% of the GDP.

Figure 4 Interaction effects plot of long-term orientation with masculinity



Notes: Cutoff values: Feminine \leq 50, masculine $>$ 50; short-term orientation \leq 50, long-term orientation $>$ 50.

Figure 5 Interaction effects plot of egalitarianism with ethnic diversity



Notes: Cutoff values: low egalitarianism $<$ 4.52, medium egalitarianism = 4.52–4.84, high egalitarianism $>$ 4.84. Low ethnic diversity $<$.06, medium ethnic diversity = .06–.3, high ethnic diversity $>$.31.