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Cultural intelligence: An identity lens on the influence of cross-cultural experience

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ABSTRACT

Cultural intelligence (CQ) is an increasingly valuable asset for managers, employees, entrepreneurs, and their organizations. While there is now considerable evidence for its benefits, knowledge remains cloudy surrounding its antecedents. Drawing on identity theory, we develop a model unpacking the relationship between cross-cultural experience—a core antecedent with mixed findings in extant research—and CQ. We advance multicultural identity as a pivotal intervening variable and probe the role of self-verification striving as an identity-based boundary condition. Across two interlocking studies, we find evidence for how CQ can be cultivated from a range of increasingly common forms of cross-cultural experiences. In doing so, we shed light on the mixed results in prior research and provide key implications for future research; namely, multicultural identity helps to better account for *when* and *how* individuals translate their cross-cultural experiences into CQ.

1. Introduction

Since cultural intelligence (CQ), defined as the ability to interact effectively in culturally diverse contexts (Earley and Ang, 2003), first emerged as a construct in 2003, numerous studies have demonstrated that CQ is a promising predictor of intercultural effectiveness (e.g., Rockstuhl and Van Dyne, 2018; Schlaegel et al., 2021). Given its apparent relevance to business in the globalized 21st century, it is perhaps not surprising that a growing body of research has emerged over the years. In fact, despite the recent genesis of CQ research, an abundant amount of research has culminated in several reviews (e.g., Fang et al., 2018; Leung et al., 2014; Ng et al., 2012; Yari et al., 2020). Most research on CQ has focused on its outcomes, such as adjustment, performance, and global leadership effectiveness (Ott and Michailova, 2018), and more complex models involving mechanisms linking CQ with outcomes such as performance have been examined (e.g., Rockstuhl and Van Dyne, 2018). Although studies investigating the antecedents of CQ have been

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more limited, three broad categories of antecedents of CQ have emerged as especially important – individual differences, cross-cultural training, and cross-cultural experiences. Research on a wide variety of individual differences has consistently identified personality traits such as openness to experience and agreeableness (e.g., Ang et al., 2006), language ability (Harrison, 2012), social intelligence (Depaula et al., 2016), and cognitive flexibility (Bernardo and Presbitero, 2018) as potent inputs to CQ. Although several studies highlight the role of cross-cultural training in the development of CQ (see Yari et al., 2020 for a review), cross-cultural experience has received the most attention. Such direct experiences are considered much more important than training in the development of cross-cultural skills (e.g., DeRue and Wellman, 2009). In this study, we focus only on cross-cultural experiences and ask the question: *when and how does cross-cultural experience contribute to CQ?*

Cross-cultural experience, also referred to as multicultural, international, or intercultural experience (Maddux et al., 2021), is generally defined in terms of work or personal encounters that people acquire in cultural contexts other than their own or when interacting with culturally diverse others (Dragoni et al., 2014; Tadmor et al., 2012b). Although the positive relationship between cross-cultural experience and CQ is conceptually intuitive, recent reviews of this link (Michailova and Ott, 2018; Ott and Iskhakova, 2019) have noted several inconsistencies in the literature. For example, concerning overall CQ, some studies have reported positive significant effects of cross-cultural experience (e.g., Crowne, 2008; Kim and Van Dyne, 2012) while others have reported no significant effects (e.g., Gupta et al., 2013). Similar inconsistencies have also been reported for the influence of cross-cultural experience on the various dimensions of CQ. For example, in two studies conducted by Eisenberg et al. (2013), cross-cultural experience was significantly associated with all except the behavioral dimension of CQ in one study; in the second study, results supported a link with all except the cognitive dimension of CQ. According to Michailova and Ott (2018), these inconsistencies can be attributed to the lack of theory-based studies. As they state (p. 67), “On the basis of the critical review of the literature, our main criticism ... is that theory is being mentioned/stated as a reason to anticipate outcomes rather than being applied to explain why and how individuals might develop CQ from IEs [international experiences]”. Indeed, they identified only 1 of 18 articles (i.e., Li et al., 2013) that actually applied theory to explain the relationship between cross-cultural experiences and CQ.

This lack of theory-based investigations of the relationship between cross-cultural experience and CQ is surprising given the various theoretical lenses that have been used to explicate relationships involving the antecedents of intercultural competencies in general. As Richter et al. (2020) note, several key theories, such as learning theories, contact theory, and personality theory, have been invoked to explain a variety of inputs to intercultural competencies, including CQ. However, these authors also concur with Michailova and Ott (2018) that examinations of the underlying process whereby antecedent factors, such as cross-cultural experience, are related to CQ remain limited. There are, however, some promising models that have recently been proposed. One model by Li (2017) uses experiential learning theory to explain how various facets of cultural exposure and individual differences trigger four different experiential learning modes, which facilitate the development of CQ. Another model by Michailova and Ott (2018) draws on social learning theory to articulate the link between cross-cultural experience and CQ in terms of attention, retention, and participative reproduction processes. However, to the best of our knowledge, these models have yet to be supported empirically. While these theoretical models are viable explanations of the relationship between cross-cultural experience and CQ, we offer a new theoretical lens by adopting an identity-based approach to provide a more comprehensive understanding and clarification of the relationship between cross-cultural experience and CQ.

The expatriate literature hints at the potential of identity as an explanation for why cross-cultural experiences may play an important role in the development of CQ (Mao and Shen, 2015). Expatriation represents an especially intense form of cross-cultural experience (Shaffer et al., 2012), and it has often been described as a transformative experience (Osland, 2000) that leads to changes in identity (e.g., Kohonen, 2008; Kraimer et al., 2012). Identity refers to the way individuals see themselves, and it influences the way individuals think, feel, behave, and relate to others (Leary and Tangney, 2003). Drawing on identity theory (Stryker, 1968; Stryker and Burke, 2000), we propose that individuals who are exposed to various cross-cultural experiences develop a multicultural identity, which in turn contributes to the development of CQ. We follow prior studies (e.g., Vora et al., 2018) in defining multicultural identity as the integration of multiple cultural affiliations as part of one's self-concept (Benet-Martinez, 2012; Yampolsky and Amiot, 2016).

Our objectives for this research are twofold, both of which we achieve by conducting two interlocking studies. Our first objective is to develop and test a theoretically driven model that explains the influence of cross-cultural experiences on CQ, via multicultural identity. In essence, we argue that the more people are exposed to diverse cultural elements, the more influential those experiences become in shaping their concept of self as a multicultural person. A multicultural identity, in turn, stimulates greater knowledge acquisition, social interactions, and awareness in cross-cultural situations, thereby positively contributing to one's CQ. In Study 1, we establish the mediating role of multicultural identity, and then, in Study 2, we turn our attention to a key boundary condition—self-verification striving. This is an important component within identity theory that reflects the motivational need to affirm one's identity by seeking self-verification through social interactions (Swann, 2011; Swann et al., 2004). In line with extant studies, we conceptualize self-verification striving as an individual dispositional factor and define it as an individual's propensity to self-verify (Cable and Kay, 2012; Kim et al., 2019; Moore et al., 2017; Swann and Read, 1981a). We propose that self-verification striving moderates the cross-cultural experience-multicultural identity link because when exposed to cross-cultural experiences, people with a stronger self-verification striving form and maintain a stronger multicultural identity as they are more inclined to use self-verification strategies to stabilize their self-views (Swann, 2011). This also suggests that the positive relationship between cross-cultural experience and CQ, via multicultural identity, is amplified at higher levels of self-verification striving.

Our second objective is to assess more comprehensive measures of cross-cultural experience. As noted in both reviews of the relationship between cross-cultural experience and CQ (Michailova and Ott, 2018; Ott and Iskhakova, 2019), most studies have relied on single-item measures that bluntly assess or proxy cross-cultural experience, which is a very rich and diverse phenomenon in reality (Maddux et al., 2021). As such, we seek to also address some of the frequent inconsistencies in extant studies on the effects of cross-

cultural experience on CQ. For example, Kim and Van Dyne (2012) measured intercultural contact using the number of countries lived in for at least six months. Others have measured international work experience in terms of months worked (e.g., Li et al., 2013), number of countries visited (Shannon and Begley, 2008), frequency of foreign trips (Pidduck et al., 2020a; Pidduck and Zhang, 2022), and study abroad experiences (e.g., Varela and Gatlin-Watts, 2014). Few studies (e.g., Moon et al., 2012) have used measures that reflect the complexity of cross-cultural experiences (i.e., depth, breadth, and type of experiences). We address this by developing formative measures that are context-specific and that use a range of different indicators of cross-cultural experiences. In Study 1, to assess the cross-cultural experiences of global employees, we assess the depth of both work and nonwork experiences as well as the intensity of the cross-cultural experiences of global employees. Based on Shaffer et al.'s (2012) taxonomy of global employees, we anticipate that global employees whose global work requires high levels of both international travel and cognitive flexibility will report significantly higher levels of CQ, via multicultural identity, than other forms of global employees whose jobs require less travel and cognitive flexibility when engaging in cross-cultural interactions. In Study 2, we target the general employee population, so our measure includes a greater array of cross-cultural experiences that capture both quantitative and qualitative aspects of this construct.

In addressing these research objectives, this paper makes three contributions to the growing CQ domain in international business. First, our primary advancement to this literature lies in introducing an identity lens (Stryker, 1968; Stryker and Burke, 2000) to extend recent studies (e.g., Lee et al., 2018) and better understand the nuanced relationship between exposures to other cultures and CQ via the role of multicultural identity. In doing so, we build theoretical knowledge on *how* CQ emerges—addressing critiques surrounding the atheoretical development of CQ research over the past decade (Michailova and Ott, 2018; Tarique and Takeuchi, 2008). Second, we expand our multicultural identity model to include self-verification striving as a key identity-based boundary condition that explains *when* some individuals are more successful in leveraging their cross-cultural experiences via their multicultural concept of self to develop higher levels of CQ (Swann et al., 2004). Third, we contribute to the global experience literature (e.g., Shaffer et al., 2012; Maddux et al., 2021) by advancing knowledge on the *types* of cultural experience that are developmental for businesspeople (Dragonetti et al., 2014; Pidduck, 2022). In particular, our formative cross-cultural experience measures demonstrate the importance of including items that are both sensitive to the context and that have a wide range of items. Conceptually and empirically, we shed light on the mixed findings surrounding the role of cross-cultural experiences in prior research.

2. Theoretical background and development of hypotheses

As depicted in Fig. 1, we propose a moderated mediation model in which cross-cultural experience contributes to CQ via multicultural identity and self-verification striving moderates the relationship between cross-cultural experience and multicultural identity, and it has a conditional effect on the relationship between cross-cultural experience and CQ. In this section, we first describe the theoretical foundation for our model and then develop hypotheses.

2.1. Theoretical foundation

Identity theory (Stryker, 1968; Stryker and Burke, 2000) has been widely applied in organizational research to understand individuals situated in social interactions and embedded within society (Farmer and Aguinis, 2005). It is based on an underlying assumption that social behavior involves reciprocal relations between the self and society (Stryker, 1968) and that society is “complexly differentiated but nevertheless organized” (Stryker and Serpe, 1982: p. 206). As a reflection of society, the self should be regarded as a multifaceted yet organized construct. Identity theorists (see Stets and Serpe, 2013, for a comprehensive overview) refer to the multiple components of self as identities. A principal tenet of identity theory stipulates that the meanings one attaches to various identities are negotiated and managed through social interactions or “symbolic interactionism” (Burke and Stets, 2009). More precisely, this delineates how identities emerge and develop through the process of communicating with others who perceive the salience of a particular identity in a given social interaction symbolically (Stets and Burke, 2000). For example, an individual may hold a plethora of identities simultaneously (e.g., a father, brother, son, adventurer, employee, and manager) yet interact primarily as “manager” when at the office. Thus, experiences there serve to bring the shared societal symbol of “manager” to the forefront and social interactions may serve to bolster or attenuate the individual's identity as a manager (Burke and Stets, 2009). In other words, an identity is comprised of a shared set of meanings, realized experientially through social interactions, that define who a person is within society and that serve to shape behaviors (Burke and Stets, 2009). Recent research reviewing the literature on the multidimensional identity aspects of individuals suggests that people are “characterized by their bundles of simultaneously existing attributes and social relations” (Liu et al., 2019: p. 197). An identity lens, then, helps examine why people may develop multiple aspects of their identity based on their social experiences—in this study, cross-cultural experiences. In particular, the concept of multiplexity holds that individuals define themselves through their social relations, which provides theoretical grounding to suggest that experiences *precede* identity formation and not the reverse (Holschuh and Segal, 2002; Verbrugge, 1979).

Multidimensional aspects of identity also provide a theoretical framework for explaining how particular types or contexts of social experiences shape an individual's role-related behaviors (Hogg et al., 1995). For example, Burke and Reitzes (1991) suggest that it is

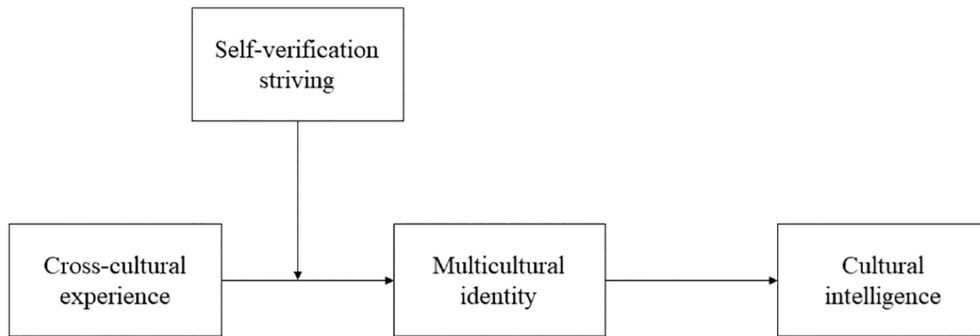


Fig. 1. A model of cultural intelligence.

through interactions with others that self-meanings come to be known by the individual, mainly because in relevant social situations, others “respond to the person as a performer in a particular role” (p. 84). Thus, the meanings of the self are only learned from the responses of others to one's own actions (Burke and Reitzes, 1991).¹ Our central premise, which we elaborate on in the hypothesis development sections, is that cross-cultural experience provides individuals with a distinct category of social interactions that helps them enhance their understanding and knowledge of the compatibility of different identities associated with multiple cultures, which is difficult to experience in purely mono-cultural contexts (Benet-Martínez et al., 2002). Such enhanced understanding, in turn, should lead to a culturally broadened sense of self as one becomes more aware of the culturally different components that are attached to their identity (Friedman et al., 2012).

While multicultural identity may appear similar to related forms of culture-influenced identities at a surface level, it is distinct from both global and bi-cultural identity in several important ways. Erez and Gati (2004) defined a global identity in terms of an individual's sense of belonging to a global work context that is not specific to any local national culture. In contrast, a bi-cultural identity (Benet-Martínez and Haritatos, 2005; Chen et al., 2008) is predominantly concerned with explaining individuals socialized into two national cultural identities, typically through ascribed attributes such as parental links or heritage (Phinney and Devich-Navarro, 1997; Stroink and Lalonde, 2009). While there are overlaps among all these forms of cultural identity in that people develop a sense of self tied to more than one culture, a multicultural identity is more broadly inclusive in that anyone, irrespective of work or nonwork contexts, can develop an identity that encapsulates connections to multiple cultures and worldliness – without necessarily referencing particular cultures. That is, we conceptualize multicultural identity as a form of personal identity, which consists of an individual's traits, characteristics, interests, and goals (Brickson, 2000). Bi-cultural identity is a type of collective identity that reflects membership and identification with particular social or cultural groups, and it consists of the characteristics shared by ingroup members (Brickson, 2000). We do not restrict a multicultural identity to specific cultures as is the case with a bi-cultural identity. Instead, we view a multicultural identity as one that is informed by an array of cultural experiences that are not necessarily tied to particular cultural groups nor are they restricted to the work context. Consequently, an individual could have collective identities, such as national identity (e.g., Chinese) or a bi-cultural identity (e.g., Chinese-American), as well as personal identities such as a global employee identity or a multicultural identity. These identities can co-exist such that one does not preclude the other. Although global identity (e.g., Erez et al., 2013), bicultural identity integration (e.g., Dheer and Lenartowicz, 2018), and multiculturalism (e.g., Korzilius et al., 2017) have been associated with CQ, we do not know of any studies that have linked cross-cultural experience with this more inclusive multicultural identity in predicting CQ.

2.2. Cross-cultural experience and multicultural identity

Through the lens of identity theory, it can be deduced that frequent personal interactions with other cultures raise the chances that parts of a person's identity will be tied to these experiences—as opposed to those who have little or no interactions with other cultures (Nguyen and Benet-Martínez, 2010). The more individuals are exposed to foreign cultures (i.e., different from their own home culture) and become immersed with the norms within those cultures, the more likely they are to attach aspects of themselves to a combination of cultures and integrate them into their personal identity (Benet-Martínez, 2012). In the organizational setting, the more businesspeople encounter and engage with a diverse array of cultures, the more probable it is that some aspects of their own identity will become tied to their familiarity and association with different cultures. For example, expatriates who spend many years working abroad may have developed an affinity for each culture while living there. Through experiencing distinct cultures and becoming cognizant of the similarities and differences among them, expatriates may begin to derive value and personal attachment to their own understanding and affiliation with various cultures such that it becomes an integral part of their personal identity. Thus, cross-cultural

¹ Though social identity theory shares metatheoretical similarities with identity theory (Hogg et al., 1995), “identity theory may be more effective in dealing with chronic identities and with interpersonal social interaction, while social identity theory may be more useful in exploring intergroup dimensions and in specifying the socio-cognitive generative details of identity dynamics” (p. 255). Thus, as we are chiefly concerned with how multiculturalism manifests as a chronic personal identity, not a temporal group association, we draw chiefly on identity theory.

experiences afford people the opportunity to interact with different cultures, thereby setting the stage for the development of a multicultural identity. Stated formally:

Hypothesis 1. Cross-cultural experience is positively related to multicultural identity.

2.3. *The mediating role of multicultural identity*

Based on identity theory, we contend that multicultural identity has a positive association with CQ as well as a mediating role linking cross-cultural experience and CQ. Individuals with a multicultural identity are well positioned to shift awareness among various cultural orientations in response to cultural cues in social interactions (Hong et al., 2007; Verkuyten and Pouliasi, 2006). As a result, those with a strong multicultural identity can process and organize socio-cultural information in more cognitively complex ways than monocultural identity individuals (Benet-Martínez et al., 2006). That is, they have greater cognitive complexity (Benet-Martínez et al., 2006; Tadmor et al., 2009) and the ability to understand people from other cultures (Tadmor et al., 2012a). They place substantial value on their knowledge, awareness, and personal associations with more than one culture. In other words, having a multicultural identity facilitates the acquisition of cognitive and social skills, which results in wider cultural repertoires and competencies (Padilla, 2006). Therefore, those who identify themselves as being multicultural are motivated to acquire knowledge about different cultures and to interact with people with different cultural backgrounds. Overall, multicultural identity permits an individual to be more aware of cultural dynamics and adopt appropriate actions in cross-cultural situations. Accordingly, individuals with a stronger multicultural identity are more likely to achieve a higher level of CQ because of their greater engagement and learning in cross-cultural situations.

In addition to its direct effect on CQ, we also propose that multicultural identity will intervene in the relationship between cross-cultural experience and CQ. CQ is a pliable state that may change based on the level of cultural exposure or other cross-cultural experiences (Chua et al., 2012; Earley and Peterson, 2004). Because most studies of this direct relationship have been supported (Ott and Michailova, 2018), we do not hypothesize this. However, to explicate this relationship, we posit that multicultural identity will play an integral role in linking cross-cultural experience with CQ. How individuals perceive themselves (i.e., their identity) is inherently associated with the social interactions in question (i.e., through cross-cultural experience); as individuals engage substantially with that experience, they are more likely to form a stronger identity that fosters corresponding cognitions, motivations, and behavior (Stryker and Burke, 2000). The more they are exposed to different cultures other than their own, the more likely they see themselves as a multicultural person. To that end, individuals with a multicultural identity attach greater personal importance to their cross-cultural experiences, as these are central to who they are and how they view themselves. That is, a multicultural identity serves as a lens through which individuals make sense of their cross-cultural experiences and transform those experiences into CQ. A multicultural identity thus provides both the direct exposure to cultural knowledge (Thomas et al., 2015) and the impetus required to more deeply engage (Vora et al., 2018) and process the cross-cultural experience stimuli at levels that drive the development of CQ. Consequently, through the mechanism of multicultural identity, cross-cultural experience positively relates to CQ. Based on this discussion, we propose the following hypotheses:

Hypothesis 2. Multicultural identity is positively related to CQ.

Hypothesis 3. Multicultural identity mediates the relationship between cross-cultural experience and CQ.

2.4. *Self-verification striving as a boundary condition*

We posit that self-verification striving is a condition under which cross-cultural experiences are more likely to shape and maintain multicultural identity. According to self-verification theory (Swann, 2011; Swann and Read, 1981a), individuals are naturally inclined to seek coherence between their experiences and self-views through various self-verification strategies. They can acquire positive and/or negative social feedback that is consistent with their self-views regardless of their social and global self-esteem (Swann et al., 1989). Self-verifying evaluations help enhance individuals' perceptions of inner coherence by reassuring them that things are as they should be (Swann et al., 2004). People may also communicate their self-views to others through conveying identity cues (Swann et al., 1994; Swann et al., 1992). Kim et al. (2019) suggested that individuals with a stronger self-verification striving would internalize the emotions they are expected to display so that others would understand them as they see themselves. They found a positive relationship between self-verification striving and deep acting emotional labor. People craft their physical environments (e.g., offices and bedrooms) to communicate to others who they are and to reinforce their self-views (Gosling et al., 2002). Moreover, people may selectively attend to and retrieve information that confirms their self-views and interpret information in ways that verify their self-views (Swann and Read, 1981a, 1981b). Individuals may engage in any or all these self-verification processes to reinforce their self-views.

Self-verification striving is effective in bolstering the influences of experiences on identity, particularly in unfamiliar social situations, as these may introduce ambiguity or even contradict elements of an existing identity that are uncomfortable (Swann and Read, 1981a). We contend that the relationship between cross-cultural experiences and multicultural identity is amplified when people place greater value on self-verification (i.e., when self-verification striving is stronger) than otherwise. In cross-cultural contexts, people often encounter unfamiliar social situations (Leung and Chiu, 2010), such as being exposed to cultural values and norms that are different from their own. Earlier we theorized that greater exposure to foreign cultures relates to a stronger multicultural identity because their affiliation with different cultures would become an integral part of their self-views. Compared to people with a weaker self-verification striving, those with a stronger self-verification striving are more inclined to use self-verification strategies to stabilize

such self-views. For example, they may strive to internalize the cultural cues in foreign contexts, and/or selectively attend to information and retrieve cultural cues that help them organize those cues to stabilize their coherent self-conception. Hence, those who are exposed to cross-cultural experiences and have a stronger self-verification striving are more likely to confirm and reinforce their multicultural identity. Therefore, we posit that the relationship between cross-cultural experience and multicultural identity is more positive when self-verification striving is higher. Stated formally:

Hypothesis 4. Self-verification striving moderates the positive relationship between cross-cultural experience and multicultural identity, such that the relationship is stronger when self-verification striving is higher.

While we expect self-verification striving to amplify the relationship between individuals' cross-cultural experiences and their multicultural identity, we posit that it is also influential to the indirect relationship between cross-cultural experience and CQ. As established thus far, identity theory holds that an individual's identity is central to how he or she processes and engages with experiences, such that the more related the experiences are to one's identity, the more likely that person will engage in those experiences (Stets and Serpe, 2013). Thus, multicultural identity is likely to have a stronger influence in bridging the relationship of cross-cultural experience to CQ, as self-verification striving enhances the potency of that identity. Integrating the hypothesized relationship between the mediating role of multicultural identity in the cross-cultural experience and CQ relationship (Hypothesis 3) and the moderating role of self-verification striving on the cross-cultural experience and multicultural identity relationship (Hypothesis 4), we propose the following hypothesis:

Hypothesis 5. Self-verification striving moderates the indirect relationship between cross-cultural experience and CQ, via multicultural identity, such that the indirect relationship is stronger when self-verification striving is higher.

3. Study 1: testing the mediating role of multicultural identity

3.1. Method

3.1.1. Sample and procedures

In this study, we recruited global employees based in the United States through Qualtrics, an online survey company that provides web-based survey panels. To be eligible to participate in this study, individuals had to have traveled for business purposes outside their home country and/or communicated with business associates within other countries within the past year that the survey was conducted. Participation was voluntary and confidentiality was assured. Of the initial 364 participants who responded to the survey, 319 provided complete responses (response rate = 87.64%). Among these participants, 52% were male and 85% had a bachelor's degree or above. They had an average age of 42.35 years old.

3.1.2. Measures

To assess cross-cultural experience, we developed measures of both the duration and the intensity of the experience. We followed Leung and Chiu (2010) in developing the formative-indicator measure of *cross-cultural experience duration*. We operationalized this using two items that captured the duration of their cross-cultural experience. One item, *global job responsibility tenure*, asked about how long they have worked in a job that has included global responsibilities (in years and months). This item measures the extent to which an employee is exposed to cross-cultural experiences (e.g., through social interactions) at work. The second item asked whether an employee had lived in a foreign country (yes/no). This item taps into an employee's immersion experience in cross-cultural contexts. We rescaled the items (Leung and Chiu, 2010) by computing the normalized score of each item and then added them to create the score for an overall duration of cross-cultural experience.

It is important to note that this measure of cross-cultural experience duration is formative rather than reflective. Formative constructs are measured with items that define the construct rather than items that reflect the definition of the construct. That is, for formative models, the latent construct is formed by a combination of the items measured and items neither share a common theme nor are they interchangeable (see Coltman et al., 2008, for a discussion of formative measurement models). In contrast with reflective constructs (which are what are mainly used in management research), formative constructs do not necessarily demonstrate unidimensionality or internal consistency – in fact, these are not even desirable qualities of formative constructs (Petter et al., 2007; Williams et al., 2009). Consequently, we do not assess the reliability of this scale.

To measure the intensity of the cross-cultural experience, and to indirectly assess whether those with greater and more diverse global work experiences will have higher levels of multicultural identity, we asked participants to indicate the type of global employee that best described their *global work responsibilities*. Participants were given a list of different types of global employees (i.e., corporate expatriates, short-term assignees, international business travelers, international commuters, global virtual team members, and global domestics) using the taxonomy of global employees developed by Shaffer et al. (2012). They were given a brief description of each type of global work responsibility and asked to indicate which type best described them (see Appendix A). We anticipated that global employees whose job required them to travel more than others and whose job was more cognitively demanding would be indicative of higher levels of cross-cultural experience. Because this is a categorical measure, we dummy-coded each global employee type. As there were only four international commuters in this sample, we combined international business travelers and international commuters as one category and labeled it as “global business travelers”. We used global domestics as the referent group in the analyses.

We assessed *multicultural identity* using 7 items. We developed a measure of multicultural identity to capture the extent to which one identifies with the different cultures they have experienced. Specifically, we adapted items from previous scales (e.g., Hall et al., 1970;

Table 1

Study 1: means, standard deviations, reliabilities and correlations.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Cross-cultural experience index	0.00	0.72	(-)										
2. Corporate expatriates	0.17	0.37	0.21**	(-)									
3. Short-term assignees	0.05	0.22	0.05	-0.10	(-)								
4. Global business travelers	0.36	0.48	0.02	-0.33**	-0.17**	(-)							
5. Global virtual team members	0.13	0.34	-0.05	-0.17**	-0.09	-0.29**	(-)						
6. Multicultural identity	3.58	1.06	0.25**	0.23**	0.03	0.13*	0.15**	(0.96)					
7. Cultural intelligence	5.56	0.87	0.21**	0.12*	0.02	0.16**	-0.04	0.54**	(0.89)				
8. Gender	0.52	0.50	-0.08	-0.25**	0.11	0.19**	0.04	-0.06	0.00	(-)			
9. Age	42.35	13.22	-0.01	-0.22**	-0.02	-0.01	-0.03	-0.14*	-0.08	0.00	(-)		
10. Education	3.32	0.90	-0.09	-0.02	0.01	-0.09	0.09	-0.05	-0.04	-0.12*	0.11	(-)	
11. Openness to experience	4.01	0.59	0.19*	0.15*	-0.09	0.11*	-0.01	0.47**	0.68**	0.02	0.11	-0.15**	0.07 (0.70)

Note. $N = 319$. * $p < .05$. ** $p < .01$. Corporate expatriate vs. global domestic. Short-term assignee vs. global domestic. Business travelers vs. global domestic. Global virtual team member vs. global domestic. For gender: 1 = male, 0 = female. For education: 1 = high school or below, 2 = some college, 3 = bachelor's degree, 4 = master's degree, 5 = doctoral degree. SD = standard deviation. Reliabilities are shown in parentheses on the diagonal.

Luhtanen and Crocker, 1992) by changing the wording in each item to tap into personal identification with more than one culture. An introductory statement was provided to alleviate potential ambiguity in the understanding of the meaning of “membership in more than one culture”. The responses were recorded on a five-point Likert scale (1 = totally inaccurate, 5 = totally accurate). The Cronbach's alpha for the scale was 0.96.

To empirically test if multicultural identity is distinct from global identity, we conducted a confirmatory factor analysis (CFA). Global identity was measured using a four-item scale developed by Erez and Gati (2004). Following the recommendations of Shaffer et al. (2016), we compared the fit indices of two models: (a) the unconstrained model in which two latent constructs covary freely with each other, and (b) the constrained model in which the covariance of the two constructs was set to 1. The results showed that the unconstrained model had a better fit than the constrained model: $\Delta\chi^2(\Delta df = 1) = 138.61, p < .01$, supporting the distinctiveness of multicultural identity from global identity. We also assessed convergent and discriminant validity for this scale using data from a separate sample (see Appendix B for a detailed explanation and full items).

We measured overall CQ using a 9-item mini-CQ scale developed by Ang and Van Dyne (2008). Sample items include “I am conscious of the cultural knowledge I apply to cross-cultural interactions” and “I know the legal and economic systems of other cultures.” Responses were on a 7-point Likert rating scale (1 = completely disagree, 7 = completely agree). In line with previous studies (Ng et al., 2019), we computed an average score for the overall CQ construct based on the 9-item scores. Cronbach's alpha for the scale was 0.89.

We included gender, age, and education level as control variables. We also included openness to experience as a control variable because Ang et al. (2006) suggested that openness to experience is the only Big-Five personality that is significantly related to all aspects of CQ. To assess openness to experience, we used four items from McCrae and Costa (1991). Cronbach's alpha for the scale was 0.70.

3.2. Results

Descriptive statistics, correlations, and reliability statistics are shown in Table 1. Notably, cross-cultural experience was positively related to both multicultural identity ($r = 0.25, p < .01$) and CQ ($r = 0.21, p < .01$).

Before testing the hypotheses, we conducted CFAs to examine the measurement models. The results showed that the three-factor model (i.e., multicultural identity, CQ and openness to experience) had a reasonably good fit to the data: $\chi^2(df = 152) = 335.83, CFI = 0.96, TLI = 0.95, RMSEA = 0.06$. In addition, this model was significantly better than all alternative two-factor models.

We used structural equation modeling in Mplus 7 to test our hypotheses. The results are presented in Table 2. To test Hypothesis 1, we conducted a direct effect model in which the cross-cultural experience duration index and global employee types were linked to multicultural identity after controlling for age, gender, education level, and openness to experience. The results showed that the model had a good fit: $CFI = 0.99, TLI = 0.99, RMSEA = 0.04$. As shown in Model 1 in Table 2, the cross-cultural experience duration index was positively related to multicultural identity ($b = 0.16, p < .05$). In addition, corporate expatriates ($b = 0.44, p < .01$) and short-term assignees ($b = 0.45, p < .05$) were both positively related to multicultural identity. However, neither global business travelers ($b = 0.22, n.s.$) nor global virtual team members ($b = -0.19, n.s.$) were related to multicultural identity. In summary, Hypothesis 1 was supported.

Hypothesis 2 predicted that multicultural identity is positively related to CQ. We tested this hypothesis based on a direct effect model where multicultural identity and control variables were associated with CQ. The model had a good fit to the data: $CFI = 0.96, TLI = 0.95, RMSEA = 0.06$. As shown in Model 2 in Table 2, the coefficient of the path linking multicultural identity and CQ was positive and significant ($b = 0.22, p < .01$), supporting Hypothesis 2.

Table 2

Study 1: results of structural equation modeling.

Variable	Multicultural identity		Cultural intelligence	
	Model 1		Model 2	Model 3
	<i>b</i> (se)		<i>b</i> (se)	<i>b</i> (se)
Controls				
Gender	-0.02 (0.09)		0.01 (0.06)	-0.03 (0.10)
Age	-0.00 (0.00)		0.00 (0.00)	-0.00 (0.00)
Education	-0.02 (0.05)		0.01 (0.03)	-0.02 (0.05)
OTE	0.62** (0.09)		0.70** (0.07)	0.64** (0.09)
Predictors				
Cross-cultural experience	0.16* (0.06)			0.16* (0.06)
Corporate expatriates	0.44* (0.14)			0.45** (0.14)
Short-term assignees	0.45* (0.21)			0.45* (0.21)
Global business travelers	0.22 (0.12)			0.23 (0.12)
Global virtual team members	-0.19 (0.14)			-0.18 (0.15)
Mediator				
Multicultural identity			0.22** (0.04)	0.21** (0.04)
R^2	0.31**		0.53**	0.60**

Note. $N = 319$. * $p < .05$. ** $p < .01$. OTE = openness to experience. Unstandardized coefficients were reported.

To test the mediation hypothesis (i.e., [Hypothesis 3](#)), we compared the full mediation and partial mediation models (e.g., [Schaubroeck et al., 2017](#)). First, we examined a partial mediation model in which a cross-cultural experience duration index and global employee types were allowed to be associated with CQ. The model demonstrated a good fit to the data: CFI = 0.97, TLI = 0.96, RMSEA = 0.05. However, in this model, the cross-cultural experience duration index and global employee types were not related to CQ, indicating that a full mediation model may be better. Hence, we then tested a full mediation model in which there were no paths from the cross-cultural experience duration index and global employee types to CQ. The model yielded a good fit to the data: CFI = 0.97, TLI = 0.96, RMSEA = 0.04. The $\Delta\chi^2$ test showed that there was no significant difference between these two models ($\Delta\chi^2 [\Delta df = 5] = 5.95, n.s.$). Therefore, based on the insignificant paths from cross-cultural experience index and global employee types to CQ in the partial mediation model, and to maintain the parsimony of the model, we tested [Hypothesis 3](#) using the full mediation model.

We also obtained the 95% confidence intervals (CIs) using 5000 bootstrapping samples in Mplus. The results showed that the indirect effect of cross-cultural experience duration index on CQ through multicultural identity was positive and significant (estimate = 0.04, 95% CI = [0.01, 0.07]). The indirect effects of corporate expatriates (estimate = 0.10, 95% CI = [0.04, 0.16]) and short-term assignees (estimate = 0.10, 95% CI = [0.01, 0.19]) via multicultural identity were also significant. Overall, these results supported [Hypothesis 3](#). To check the robustness of the mediation effect, we also tested the mediation effect in a partial mediation model (see Model 3 in [Table 2](#)). We obtained the 95% CIs using 5000 bootstrapping samples. The results showed that the indirect effect of cross-cultural experience duration on CQ through multicultural identity was positive and significant (estimate = 0.03, 95% CI = [0.01, 0.06]). The indirect effects of corporate expatriates (estimate = 0.09, 95% CI = [0.03, 0.16]) and short-term assignees (estimate = 0.10, 95% CI = [0.001, 0.19]) via multicultural identity were also significant. Therefore, the pattern of results did not change and still supported [Hypothesis 3](#).

3.3. Supplementary analyses

We conducted additional analyses to examine the possibility of reverse causality. Specifically, we examined an alternative reverse model in which we positioned multicultural identity as the independent variable and cross-cultural experience as the dependent variable. We then compared this model with our hypothesized model. The results showed that the hypothesized model had a significantly better fit than the reverse causal model: $\Delta\chi^2 (\Delta df = 4) = 79.76, p < .01$. In addition, we followed [Kline's \(2011\)](#) recommendations to use the Akaike information criterion (AIC) and the Bayesian information criterion (BIC) to compare the two models (see [Matta et al., 2017](#); [Ou et al., 2014](#)). Smaller AIC and BIC values indicate the better-fitting model ([Kline, 2011](#)). The results showed that the hypothesized model (AIC = 4341.40 and BIC = 4472.51) had lower AIC and BIC values than the reverse causal model (AIC = 5159.00 and BIC = 5298.31), demonstrating that the hypothesized mediation sequence was more appropriate.

We also explored the potential effects of individual cross-cultural experience items on multicultural identity and indirectly on CQ. The results showed that among the different indicators of cross-cultural experience, previously living in a foreign country ($b = 0.15, p < .01$), corporate expatriates ($b = 0.43, p < .01$), and short-term assignees ($b = 0.40, p < .05$) played significant roles in forming one's multicultural identity. Other indicators were insignificant. In addition, bootstrapping results revealed that these same cross-cultural experience items had stronger influences on the development of one's CQ: whether living in a foreign country previously (indirect effect = 0.03, 95% CI = [0.01, 0.06]), corporate expatriates (indirect effect = 0.09, 95% CI = [0.02, 0.17]), and short-term assignees (indirect effect = 0.09, 95% CI = [0.03, 0.21]).

3.4. Discussion

The results of Study 1 showed that cross-cultural experience, assessed in terms of both duration of living and working in a foreign country and type of global employee had an important influence on multicultural identity and, ultimately, on CQ. In particular, corporate expatriates and short-term assignees, both of which have longer and more intensive exposures to cross-cultural experiences, were associated with stronger multicultural identities. However, global business travelers and global virtual team members had no significant association with CQ, perhaps because these are less culturally intense global roles than the other two forms ([Dimitrova et al., 2020](#); [Shaffer et al., 2012](#)) and thus are less likely to develop multicultural identity through their cross-cultural experience. These results suggest that the greater the number and variety of cross-cultural experiences, the more positive the association with multicultural identity. Thus, in the next study, we develop and test a more comprehensive measure of cross-cultural experience that can be used with non-global employee samples.

Overall, the findings from this initial study provide preliminary support for the positive relationship between cross-cultural experience and multicultural identity. Moreover, we demonstrate that multicultural identity and CQ are positively and significantly related; and we advance current knowledge on the relationship between cross-cultural experience and CQ by establishing multicultural identity as a mediator. Our findings suggest that this mediation is a full mediation, indicating that the role of multicultural identity is a fundamental mechanism linking cross-cultural experience and CQ. In the next study, we extend our model by including the moderating role of self-verification striving and assessing the different facets of CQ.

Table 3
Study 2: means, standard deviations, reliabilities, and correlations.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Cross-cultural experience	2.41	1.82	(-)											
2. Multicultural identity	2.99	1.17	0.53**	(0.95)										
3. Self-verification striving	5.57	0.85	-0.02	0.07	(0.82)									
4. CQ	3.69	0.59	0.31**	0.35**	0.35**	(0.90)								
5. Metacognitive CQ	4.01	0.70	0.12*	0.18*	0.38**	0.77**	(0.82)							
6. Cognitive CQ	3.27	0.82	0.43**	0.45**	0.15**	0.76**	0.37**	(0.85)						
7. Motivational CQ	3.93	0.70	0.12*	0.18**	0.38**	0.76**	0.58**	0.36**	(0.79)					
8. Behavioral CQ	3.70	0.80	0.19**	0.19**	0.24**	0.80**	0.59**	0.41**	0.50**	(0.86)				
9. Gender	0.59	0.49	0.07	0.00	-0.11*	-0.06	-0.09	0.08	-0.10*	-0.12**	(-)			
10. Age	35.19	9.69	-0.08	-0.11*	0.04	0.03	-0.01	-0.04	0.10*	0.06	-0.22**	(-)		
11. Education	0.82	0.38	0.34**	0.16**	0.01	0.22*	0.10*	0.28**	0.05	0.19**	0.08	0.07	(-)	
12. Openness to experience	3.91	0.64	-0.18**	-0.05	0.27**	0.30**	0.36**	0.06	0.39**	0.22**	0.00	0.11*	0.09	(0.81)

Note. $N = 412$. * $p < .05$. ** $p < .01$. CQ = Cultural intelligence. For gender: 1 = male, 0 = female. For education: 1 = high school or below, 2 = some college, 3 = bachelor's degree, 4 = master's degree, 5 = doctoral degree. SD = standard deviation. Reliabilities are shown in parentheses on the diagonal.

4. Study 2: self-verification striving as a boundary condition

4.1. Method

4.1.1. Sample and procedures

We collected data from the U.S. working population using Amazon's Mechanical Turk, a platform enabling researchers to access an expansive range of individuals for participation in surveys and social science experiments. Providing that best-practice procedures are followed, samples collected via such platforms are representative and the data is equally as valid as comparable sources (Goodman et al., 2013; Mason and Suri, 2012). Recent studies on CQ in premier journals have utilized this platform for data collection (see Thomas et al., 2015). Specifically, we followed the latest best-practice methods for recruitment and design using direct online-sourced survey platforms (Chmielewski and Kucker, 2020; Hunt and Scheetz, 2019; Kennedy et al., 2020). These included requesting only those from the United States, those with HIT (Human Intelligence Task) ratings greater than 95%, paying respondents \$2.00 for each wave of surveys, and using multiple attention check questions to exclude those survey responses that failed these questions.

Following previous studies (Buhrmester et al., 2011; Gleibs, 2017; Hauser and Schwarz, 2016), we collected data in two waves to alleviate concerns regarding common methods bias (Podsakoff et al., 2003). At Time 1, we assessed an expanded cross-cultural experience index, multicultural identity, self-verification striving, demographic variables, and openness to experience ($n = 1081$). At Time 2 (one week later), the participants were asked to assess their CQ ($n = 460$). Following the recommendations by Rogelberg and Stanton (2007), we ran separate one-sample *t*-tests for gender, age, education level, cross-cultural experience, multicultural identity, and self-verification striving to test if there was a statistically significant difference between our sample mean and the population means for these variables. The results were non-significant.

Our sample consisted of a matched sample of 412 participants who completed surveys at both Times 1 and 2. The respondents had a mean age of 35.19 years old, 59% percent were male, and 68% had a bachelor's degree or above.

4.1.2. Measures

Findings from Study 1 suggest that experience outside of one's home country and more diverse exposures to multicultural interactions were related to an individual's multicultural identity. Expanding on these insights, in this study we used a more comprehensive measure of cross-cultural experience that incorporates both direct physical experiences outside of one's home country (i.e., depth and breadth) and exposure to multicultural interactions. We used 9 items to create the cross-cultural (formative) experience index (see Appendix C). Two items from the Multicultural Experience Survey (Leung and Chiu, 2010) were used to measure the naturally occurring cross-cultural experiences, i.e., "What percentage of your lifetime have you lived outside your home country?" (0–100%), and "Were you born in a country that is different than where either of your parents were born?" (Yes/No). We expanded such experiences into "spouse/partner" (Item 3). We also wrote six items to reflect other likely ways through which employees may acquire cross-cultural experiences in their personal life and at work, including training in a foreign country (Item 4), exposure to a different culture (Item 5), socialization with people with different cultural backgrounds, values or nationality than one's own (Items 6–8), and foreign language fluency (Item 9). We believe that these items tap into direct and indirect personal, social, and work experiences in cross-cultural contexts. Because these items were measured using different scales, we computed a normalized score of each item. There is no strong theoretical reason that some cultural experiences are more important than others, so we assigned equal weighting to all items. We followed the same approach in Study 1 and computed a score for cross-cultural experience by adding up the normalized scores on all the indicators.

We used the same measure of *multicultural identity* ($\alpha = 0.95$) as in Study 1.

We measured CQ using a 20-item scale developed by Ang et al. (2007). It comprises four subscales, and the sample items for each are: "I am conscious of the cultural knowledge I apply to cross-cultural interactions" (metacognitive CQ); "I know the legal and economic systems of other cultures" (cognitive CQ); "I enjoy interacting with people from different cultures" (motivational CQ); and "I use pauses and salience differently to suit different cross-cultural situations" (behavioral CQ). Responses were on a 7-point Likert rating scale (1 = completely disagree, 7 = completely agree). Cronbach's alpha for the overall CQ scale was 0.90.

Self-verification striving was measured with Cable and Kay's (2012) 8-item scale ($\alpha = 0.82$) using a 5-point Likert response format (1 = strongly disagree to 5 = strongly agree). A sample item includes: "I like to be myself rather than trying to act like someone I am not". Cronbach's alpha was 0.82.

We included the same control variables in Study 1, i.e., gender, age, education level, and openness to experience (Goldberg, 1999; $\alpha = 0.81$).

4.2. Results

Descriptive statistics, correlations, and reliability statistics are shown in Table 3. Notably, cross-cultural experience was positively correlated with multicultural identity ($r = 0.53, p < .01$), overall CQ ($r = 0.31, p < .01$), metacognitive CQ ($\beta = 0.12, p < .05$), cognitive CQ ($\beta = 0.43, p < .01$), motivational CQ ($\beta = 0.12, p < .05$), and behavioral CQ ($\beta = 0.19, p < .01$).

We again performed CFAs before hypothesis testing to examine the measurement models. Because the ratio of sample size to parameter was below the recommended minimum value of 5 (Bentler and Chou, 1987), we followed the suggestions by Landis et al. (2000) to create two parcels respectively for self-verification striving and openness to experience constructs. The results showed that the four-factor model (i.e., self-verification striving, multicultural identity, latent CQ factor, openness to experience) yielded a good fit to the data: CFI = 0.94, TLI = 0.93, RMSEA = 0.05. This model was also significantly superior to other alternative models, supporting

the discriminant validities of these constructs.

We conducted SEM in Mplus 7 to test our hypotheses. Hypothesis 1 suggested a positive relationship between cross-cultural experience and multicultural identity. To test this, we examined a direct effect model where cross-cultural experience was related to multicultural identity. The results showed that this model had a good fit: CFI = 0.96, TLI = 0.95, RMSEA = 0.09, and in this model (i.e., Model 1 in Table 4), cross-cultural experience was positively related to multicultural identity ($b = 0.32, p < .01$).

Then, we tested Hypothesis 2 which predicted a positive relationship between multicultural identity and CQ. We estimated path coefficients of a latent-factor CQ model where multicultural identity (along with control variables) was allowed to be linked to the latent CQ factor. This model had a good fit to the data: CFI = 0.93, TLI = 0.92, RMSEA = 0.09. In this model (i.e., Model 3 in Table 4), the relationship between multicultural identity and CQ was positive and significant ($b = 0.16, p < .01$), supporting Hypothesis 2.

To test the mediation hypothesis (i.e., Hypothesis 3), we again followed the three-step procedures suggested by Preacher and Hayes (2008). The first two steps were met because of the support for Hypotheses 1 and 2. We compared the full mediation and partial mediation models. First, we examined a partial mediation model (Model 4 in Table 4) in which cross-cultural experience was allowed to be linked with the latent CQ factor. This model had a good fit to the data: CFI = 0.97, TLI = 0.95, RMSEA = 0.07. In addition, in this model, cross-cultural experience was related to CQ, indicating that this partial mediation model may be better than a full mediation model. Then, we tested a full mediation model in which there was no path from cross-cultural experience to CQ. The $\Delta\chi^2$ test showed that the partial mediation model had a significantly better fit than the full mediation model ($\Delta\chi^2 [\Delta df = 1] = 8.04, p < .01$). Therefore, we tested Hypothesis 3 based on the partial mediation model. The results showed that the indirect effect of cross-cultural experience on CQ via multicultural identity was positive and significant (estimate = 0.04, 95% CI = [0.01, 0.06]). We also tested the mediation effect in a full mediation model (see Model 3 in Table 4). We obtained the 95% CIs using 5000 bootstrapping samples. The results showed that the indirect effect of cross-cultural experience on CQ through multicultural identity was positive and significant (estimate = 0.05, 95% CI = [0.03, 0.07]). Therefore, the pattern of results did not change and still supported Hypothesis 3.

Hypothesis 4 posited that self-verification striving moderates the relationship between cross-cultural experience and multicultural identity. To improve the interpretability of the results (Cohen et al., 2003; Dalal and Zickar, 2012), we created an interaction term by multiplying the mean-centered values of cross-cultural experience and self-verification striving before the analysis. We tested this hypothesis by examining a moderation model in which multicultural identity was predicted by control variables, cross-cultural experience, self-verification striving and the interaction term. The results showed that the moderation model had a good fit: CFI = 0.99, TLI = 0.99, RMSEA = 0.04. As shown in Model 2 in Table 4, the interaction effect of cross-cultural experience and self-verification striving on multicultural identity was significant ($b = 0.08, p < .05$). Following the recommendations of Cohen et al. (2003), we further plotted the interactional conditional values of self-verification striving (i.e., ± 1 SD of the mean). The results of a simple slope analysis (Aiken et al., 1991) indicated that the cross-cultural experience was more strongly related to multicultural identity when self-verification striving was high ($b = 0.39, p < .01$) than when it was low ($b = 0.26, p < .01$). The slope difference test also showed a significant difference between the two slopes ($\Delta slope = 0.13, p < .05$). This difference is plotted in Fig. 2. Hypothesis 4 was thus supported.

Finally, Hypothesis 5 posited that self-verification striving moderates the indirect relationship between cross-cultural experience and CQ via multicultural identity. The moderated mediation model demonstrated a good fit: CFI = 0.95, TLI = 0.94, RMSEA = 0.07. The path estimates are shown in Table 5. As shown in the table, the indirect relationship between cross-cultural experience and CQ is more positive when self-verification striving is higher than when it is lower. In summary, the results supported Hypothesis 5.

Table 4
Study 2: results of structural equation modeling.

Variable	Multicultural identity		Cultural intelligence	
	Model 1	Model 2	Model 3	Model 4
	<i>b</i> (se)	<i>b</i> (se)	<i>b</i> (se)	<i>b</i> (se)
Controls				
Gender	-0.13 (0.09)	-0.12 (0.10)	-0.14* (0.06)	-0.15** (0.05)
Age	-0.01* (0.01)	-0.01 (0.01)	0.00 (0.003)	0.00 (0.003)
Education	-0.02 (0.06)	-0.03 (0.06)	0.11** (0.03)	0.08* (0.04)
OTE	0.09 (0.07)	0.06 (0.08)	0.38** (0.05)	0.40** (0.05)
Predictors				
CCE	0.32** (0.03)	0.32** (0.03)		0.05** (0.02)
Moderator				
SVS		0.09 (0.06)		
Interaction term				
CCE * SVS		0.08* (0.03)		
Mediator				
Multicultural identity			0.16** (0.03)	0.12** (0.04)
R ²	0.30**	0.33**	0.31**	0.34**

Note. $N = 412$. * $p < .05$. ** $p < .01$. OTE = openness to experience. CCE = cross-cultural experience. SVS = self-verification striving. Unstandardized coefficients were reported.

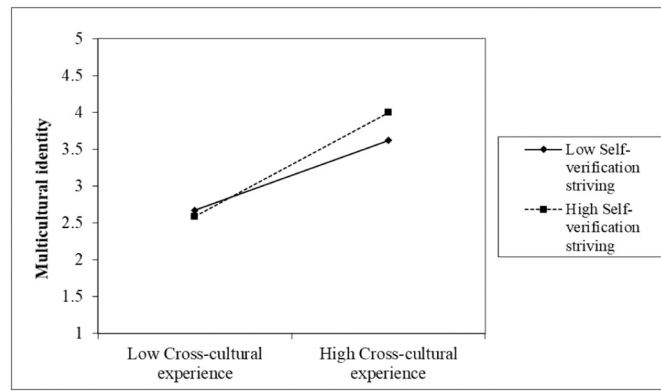


Fig. 2. Study 2: the relationship between the cross-cultural experience index and multicultural identity at high and low levels of self-verification striving.

Table 5
Study 2: results of moderation mediation models.

	Indirect effect	
	Estimate	95% CI
Cross-cultural experience → multicultural identity → CQ		
High self-verification striving (+1SD)	0.05	[0.02, 0.07]
Low self-verification striving (-1SD)	0.03	[0.01, 0.05]
Difference between low and high self-verification striving	0.01	[0.001, 0.03]

Note. CI = confidence interval; Bootstrap samples = 5000; all estimates are significant. CQ = cultural intelligence; SD = standard deviation.

4.3. Supplementary analyses

We again tested our model against a model of reverse causality. The results of Study 2 showed a similar pattern: the hypothesized model (AIC = 6227.59 and BIC = 6332.14) had a better fit than the reverse causal model: $\Delta\chi^2 (\Delta df = 4) = 18.20, p < .01, AIC = 7846.22$ and $BIC = 7958.81$.

We also probed the effects of cross-cultural experience on the four subdimensions of CQ (i.e., metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ). First, we estimated path coefficients of where multicultural identity (along with control variables) was allowed to be linked to the four CQ facets. The results showed that the model yielded a good fit to the data (CFI = 0.96, TLI = 0.94 and RMSEA = 0.08). Further, multicultural identity was positively and significantly related to metacognitive CQ ($b = 0.12, p < .01$), cognitive CQ ($b = 0.33, p < .01$), motivational CQ ($b = 0.13, p < .01$) and behavioral CQ ($b = 0.14, p < .01$). Based on our tests for Hypothesis 3, we tested a partial mediation model in which the links from cross-cultural experience to the four CQ facets were allowed. This model had a good fit to the data: CFI = 0.99, TLI = 0.99 and RMSEA = 0.03. Also, the results showed that the indirect effects of cross-cultural experience on metacognitive CQ (estimate = 0.03, 95% CI = [0.01, 0.05]), cognitive CQ (estimate = 0.08, 95% CI = [0.06, 0.11]), motivational CQ (estimate = 0.03, 95% CI = [0.01, 0.05]) and behavioral CQ (estimate = 0.03, 95% CI = [0.002, 0.06]) through multicultural identity were all positive and significant. Lastly, we examined conditional indirect effects of cross-cultural experience on the dimensions of CQ via multicultural identity. This model had a good fit to the data: CFI = 0.98, TLI = 0.97, RMSEA = 0.05. As shown in Appendix D, the indirect effects of cross-cultural experience on the four CQ facets are stronger and more positive when self-verification striving is higher than when self-verification striving is lower.

We also analyzed the cross-cultural experience items separately and, as in Study 1, we found that items did differentially relate to the model constructs. Specifically, the results showed that among the different types of cross-cultural experience, whether the individual was born in a country different from their parents ($b = 0.28, p < .05$), the extent of exposure to other cultures ($b = 0.82, p < .01$), the frequency of socialization activities with people from other cultural backgrounds ($b = 0.21, p < .01$), and the frequency of socialization activities with people holding different cultural values ($b = 0.15, p < .01$) played leading roles in forming one's multicultural identity. In addition, bootstrapping results revealed that these indicators of cross-cultural experience had stronger influences on the development of one's CQ: whether the individual was born in a country different from their parents (indirect effect = 0.05, 95% CI = [0.02, 0.09]), the extent of exposure to other cultures (indirect effect = 0.14, 95% CI = [0.07, 0.22]), the frequency of socialization activities with people from other cultural backgrounds (indirect effect = 0.04, 95% CI = [0.01, 0.07]), and the frequency of socialization activities with people holding different cultural values (indirect effect = 0.03, 95% CI = [0.01, 0.05]).

4.4. Discussion

The results of this study provide corroborating evidence for the relationships examined in Study 1 and expand our basic cross-cultural experience-CQ formulation to consider a more complex model by including the moderating role of self-verification striving. Using a comprehensive index of cross-cultural experience, we found support for the indirect relationship between cross-cultural experience and overall CQ and each of its four facets. In contrast to Study 1, which indicates a fully mediating role of multicultural identity, the results of Study 2 suggest a partial mediation effect, which we further discuss later. Moreover, we demonstrate that cross-cultural experience connects to CQ through the presence of multicultural identity and that this relationship is heightened when self-verification striving is taken into consideration. This suggests that those who utilize their social interactions to bolster their identity are more adept at transforming their experiences of different cultures into CQ.

5. General discussion

Through two interlocking studies, we found compelling empirical support for our identity-based theorizing on the relationship of cross-cultural experiences and CQ. As cross-cultural experience can vary greatly in its form, recent studies have critiqued the phenomenologically driven and generally atheoretical nature of empirical studies linking it with CQ (Ott and Michailova, 2018). We advance theory in CQ research by examining how the formation and presence of an explicit type of identity explain how and when cross-cultural experience can be influential for enhancing CQ, which is an increasingly important aptitude across a range of organizational contexts. In Study 1, we lay the foundation of our identity-based argument and demonstrate preliminary support for the influence of cross-cultural experience on multicultural identity and the intervening role of multicultural identity on the relationship between cross-cultural experience and CQ. In Study 2, we again find support for these relationships and also demonstrate that self-verification striving is an important boundary condition that enhances the influence of cross-cultural experience on CQ via multicultural identity. The findings of our studies hold important implications for both researchers and practitioners as we find support for the drivers of CQ from cross-cultural experiences more broadly.

5.1. Theoretical implications

We offer three contributions to the literature. Our first contribution is the theoretical explication of how and when cross-cultural experience relates to CQ (Earley and Ang, 2003; Thomas et al., 2008). To date, knowledge has remained scattered regarding the antecedents of CQ, and while several studies have found direct relationships between various types of cross-cultural experiences and CQ, findings have not been consistent nor have they been informative in terms of explaining the underlying logic for these relationships (see, for example, reviews of CQ by Fang et al., 2018 and Ott and Michailova, 2018). Looking through the lens of identity theory, we introduce the multicultural identity construct as a mechanism through which cross-cultural experiences can cultivate CQ. Although other forms of identity, such as a global identity in the context of work (Erez and Gati, 2004) and bicultural identity integration (Benet-Martínez and Haritatos, 2005) have been positively associated with CQ, no one has assessed identity as a mechanism linking cross-cultural experiences and CQ. This may be because global work identity and bicultural identity integration are more specific, narrower forms of identity and, as such, they are not conceptually compatible with a broader spectrum of cross-cultural experiences (see Leung et al., 2014, for a discussion of criterion-predictor matching).

Our focus on multicultural identity addresses this construct specificity issue by recognizing that a multicultural identity is more comprehensive and inclusive of a range of multicultural experience inputs to an individual's sense of self as a multicultural individual. That is, while a bicultural identity is limited to those who are bicultural, and global identity is restricted to the work context, we conceptualize multicultural identity as a potential outcome of a diverse array of cross-cultural experiences. Whether it is working abroad, personal travel abroad, being exposed to other cultures via spouses or parents, or learning foreign languages, the more a person is exposed to cultures other than one's own, the more one perceives oneself as multicultural. Such an identity matters to CQ, as evidenced by our findings from both studies that support a positive relationship between multicultural identity and CQ. The findings that multicultural identity mediated the cross-cultural experience-CQ link advances current knowledge in the CQ literature by opening a new stream of research on identifying the fundamental psychological mechanisms through which the effects of cross-cultural experience on CQ occurs. Building on our findings, future research may focus on theorizing the differentiated roles of various cross-cultural experience in identity development and subsequent formation of CQ, and empirically teasing apart these nuanced differences. For example, niche forms of cross-cultural experiences that are intense yet relatively rare (e.g., sabbaticals spent backpacking in novel circumstances) are likely to provide profound and lasting psychological changes for businesspeople (Adam et al., 2018; Pidduck et al., 2022). While our goal was mainly to advance knowledge on more common forms of cross-cultural experiences (i.e., tapping into a much broader and more inclusive phenomenon), our introduction of multicultural identity as a mediator may prove helpful in explaining or predicting linkages between such novel forms of intercultural exposure and particular dimensions of CQ in isolation.

The difference in the findings between Studies 1 (full mediation) and 2 (partial mediation) deserves some comment. It is possible that this may have been partly because Study 1 was restricted to only global employees while Study 2 included both global and nonglobal employees. As such, this opens several opportunities for future studies in replicating our findings by focusing on distinguishing these dynamics *within* cross-cultural experiences. Second, in Study 2, we were able to use a multidimensional assessment of CQ, which may provide a more accurate estimate of the indirect relationship between cross-cultural experience and CQ via multicultural identity. Examining this model in different settings provides an important avenue for future research as some dimensions of CQ may be theoretically relevant to particular outcomes of interest. As other mediators between cross-cultural experience and CQ are

based on alternate theoretical perspectives (e.g., contact theory, experiential learning, and social learning theory), we recommend probing dimension-based differences if there is compelling theoretical or phenomenological rationale for expecting such differences to be salient. Put differently, our identity-based theorizing sought to delineate multicultural identity as a generalized form of culture-based identity that links multiple forms of cross-cultural experience with CQ in general—accounting for the mixed findings surrounding this relationship in extant studies. As such, while we had no a priori logic for expecting such dimensional differences to result from a multicultural identity, it does not mean such investigations cannot be valuable in specialized contexts. For example, as cognitive CQ is the dimension most tightly linked to knowledge inputs, a study seeking to know which knowledge-intensive cross-cultural experiences (e.g., a global MBA program) provide the best “CQ return” on investment would be relevant. Alternatively, metacognitive CQ, for example, may be most salient to initiating or managing new ventures in highly globalized contexts where greater psychological resilience and alertness to complex intercultural cues is demanded (e.g., Hartmann et al., 2022; Lanivich et al., 2022). Thus, an alternate theoretical lens may be better in delineating mediators that can best explain the link between cross-cultural experiences and individual dimensions of CQ.

The second contribution of our research lies in shedding light on the amplifying effect of self-verification striving in the relationship between cross-cultural experiences and multicultural identity. Our findings are consistent with an identity-based regulatory mechanism, yielding results that are indeed reflective of identity theory's premise that seeking self-verifications plays a meaningful role in fostering the development and maintenance of identities. In addition, our results also show that employees attain higher levels of CQ from their cross-cultural experiences *when* they engage in more self-verifying strivings, as by doing so, they build a stronger multicultural identity. In addition, self-verification striving emphasizes the importance of individual agentic behavior in the development of multicultural identity and CQ. Self-verification striving implies a level of self-awareness. Previous research has shown that self-awareness influences one's self-concept along with related attitudes and behavior (Hutchinson and Skinner, 2007). Study 2 offers an important theoretical contribution by highlighting the role of individual “choice” in the form of self-verification striving: the impact of experiences is enhanced by agentic behaviors. This research as a whole contributes to the CQ literature by providing a theory-based explanation on how and when cross-cultural experience has positive implications for CQ, conceptualized either as an overall construct (Study 1) or a multidimensional construct (Study 2). The identity approach in this research, which complements the existing cognitive approaches (e.g., cross-cultural training and cognitive flexibility), also opens an interesting avenue of research for further studies of CQ. For example, researchers may investigate work situations (e.g., cultural-diverse work teams) where an individual's multicultural identity may become more salient relative to other identities.

Our third contribution is to the cross-cultural experience literature. Using different operationalizations of cross-cultural experiences that are contextually sensitive and that cover the root phenomenon of the construct (i.e., exposure to multiple foreign cultural elements) across studies, we provide triangulated evidence for the influence of cross-cultural experience on CQ. In Study 1, we delineated the depth of various work and nonwork cross-cultural experiences as well as the demands of global work that capture the intensity of cross-cultural experiences. Recognizing that global work demands (i.e., international travel and cognitive flexibility demands involving interactions with culturally diverse others) vary in their intensity across different types of global employees (Shaffer et al., 2012), we found evidence that not all cross-cultural experiences are equal. Corporate expatriates and short-term assignees benefit most from their experiences in terms of developing a multicultural identity, whereas global business travelers and global virtual team members do not quite reach the level of developing multicultural identities. Although we expected corporate expatriates to have a stronger relationship with CQ via multicultural identity, the finding that short term assignees also reported greater CQ than other types of global employees indicates that it is the experience of traveling and living in a foreign country (regardless of the length of the assignment) that matters most. The lack of significant relationships involving global business travelers and members of global virtual teams suggests that the development of a multicultural identity and CQ seems to require fuller immersion into the host culture.

Thus, in Study 2, we assessed cross-cultural experience with a more comprehensive, yet compact, index of cross-cultural experiences that apply to a broader, non-global sample of businesspeople. This formative index draws from both direct, physical experiences in different countries along with direct and indirect cross-cultural interactions. Findings from Study 2 provided support for the predictive validity of this measure by showing that it related to CQ overall and the dimensions of CQ through multicultural experience. As such, we provide a strong foundation for future empirical investigations into the role of cross-cultural experience in both international management and CQ research. While our results from both studies indicate that there are varying and noteworthy distinctions among cross-cultural experiences, overall, we demonstrate that the more exposure individuals have to various cross-cultural experiences (e.g., social interactions with others with foreign cultural backgrounds, and personal direct experiences such as traveling, living, or working abroad), the more likely they will form a multicultural identity and develop CQ. These findings hold implications for the influence of job characteristics in the wider international management area as we show that a variety of aspects of cross-cultural experience (both physical experiences and indirect exposures) are salient. The differential influence of specific indicators of cross-cultural experience also provides an explanation for contradictory findings in previous studies that were generally limited to just one or two types of cross-cultural experience.

5.2. Managerial relevance

There is a tendency to equate studies on global travel with foreign business operations, but as most global travel is not immigration or corporate expatriation (Economist, 2021), the organizational benefits from cross-cultural experiences we draw attention to in this study (i.e., the formation of CQ) are thus likely to manifest domestically, when travelers return home. Therefore, we encourage organizations seeking to draw on the benefits of CQ to be more creative and diverse in how they might tap into a range of employees' cross-cultural experiences that could indeed be leveraged, perhaps counterintuitively, for constructive firm outcomes (e.g.,

encouraging or part-funding personal travel leave that might include personal reflection hand-ins upon return). We would recommend managers create an environment where employees are encouraged to reflect on their cultural experiences for self-verification purposes, or intentionally ask employees to engage in self-evaluations during their cross-cultural experiences—perhaps via company apps or HR surveys.

Further, organizations that place substantial time and resources already into providing international opportunities for their employees, in the hope of bolstering CQ, should be cognizant of precisely how these experiences relate to the employee's identity. Our findings suggest that cross-cultural experience is directly associated with multicultural identity, and in turn, a key mediator for building CQ. Based on this, we suggest that international HR managers seeking to cultivate or strengthen CQ among employees should directly assess an individual's multicultural identity when evaluating who may benefit most from international assignments. In addition, managers should pay attention to different types of cross-cultural experiences in developing multicultural identity and CQ. For example, our findings indicate that 'global virtual team members' did not form a strong multicultural identity. This may be due to the intensity of the intercultural engagement required in a given cross-cultural experience—something that we, as stated in the limitations section, could not qualitatively assess. Therefore, organizations seeking to leverage cross-cultural interactions for CQ in predominantly virtual teams (Eberz et al., 2020) should be cognizant of how they build engaging and immersive digital environments for team members across cultures to interact.

5.3. Limitations and future research directions

While our model was tested and robust support was found for our theorizing across two corroborating samples, using alternate measures of the dependent variable—still relatively rare yet encouraged within the field (Maxwell et al., 2015)—there are some limitations in our design that provide fruitful avenues for future research. First, although we sought to test theorizing for cross-cultural experience in a generalized way to enhance the practical utility of our findings, there are some *culture-specific* experiences that we were unable to assess with a purely quantitative, scale-based approach. For instance, factors such as cultural novelty (Stoermer et al., 2020), sharing similar aspects to cultural distance, are known to be influential to the extent and intensity to which people interact and are affected by foreign cultural exposures. As such, there are likely to be some meaningful qualitative differences we are not accounting for that may help extend our findings by explaining why these culture-specific factors may bolster or attenuate multicultural identity formation (e.g., is there something unique about visiting, say, China for Western executives, or is exposure to a novel or distant culture, in general, the driving factor?). For this, qualitative or mixed-methods designs are well placed to inductively explore these dynamics through interviews. Moreover, the circumstantial factors surrounding how *personally meaningful* foreign trips were (Caligiuri et al., 2019), are also likely to be especially relevant in identity formation. For example, two Ukrainian managers may spend a month in Canada on a business trip—*ceteris paribus*—for one this may barely register as a memorable life event, for the other, it could be a pivotal trip and source of major personal learning or insight. This is an important omission, not just for our study, but in many extant studies. As identity formation deals with such meaningfulness and survey recollections may be inaccurate post-hoc, we encourage future research to collect data from supplementary sources (e.g., a spouse or supervisor) to try and tap into the nature of how cultural experiences qualitatively shaped multicultural identity and CQ.

Second, although our post-hoc reverse causality analyses (cf. Matta et al., 2017; Ou et al., 2014) supported the direction of our hypothesized relationships, because of a lack of longitudinal design, we could not draw causal conclusions. Thus, future research could consider longitudinal designs with considerably longer time lags between each wave of data collection to better capture the potentially enduring (or short-lived) nature of multicultural identity and the subsequent relevance of its role on CQ. For example, plausible questions our design could not speak to are: without any new cross-cultural experiences, can one's multicultural identity wane over time? Do people need to 'top-up' their multicultural identity with cross-cultural experiences? Future studies addressing these temporal dynamics offer practically meaningful insights for the field of international management.

Third, we employed identity theory to unpack the relationship between multicultural identity and CQ. As mentioned, there is a potential utility for delving further into specific aspects of identity theory. For example, identity saliency refers to the probability one will activate a specific identity across situations (Stets & Burke, 2014). The choice and the agency of the individual becomes an important perspective in identity salience. It is worthwhile, then, to probe the choices of multicultural individuals and the contexts in which they choose to invoke their multicultural identity. From a temporal perspective, do multicultural identities need 'booster' cultural experiences to remain higher in the salience hierarchy? Further, while we did not collect or seek to explicitly take account of the strength or salience of national identity, it is worth noting that it would not be inconsistent with our theorizing that people may hold both a strong national *and* multicultural identity. We find this especially promising and worthy of future research efforts as despite being somewhat counterintuitive at first glance, multicultural identities (and all the CQ benefits that flow from them) are not supplanting national identities, but they could perhaps even enrich or develop them in unforeseen ways—a practically important insight too in a recent landscape of rising nationalism and anti-immigration rhetoric across major Western countries. To that end, we see numerous research opportunities for unpacking multicultural identity about other aspects of identity.

Fourth, we collected data using online-sourced participants in a single country (i.e., one national cultural milieu). Though studies such as Thomas et al. (2008) used similar data collection methods, they found that CQ is indeed important cross-culturally for individuals. To that end, future studies would help examine whether the antecedent mechanisms we introduced in this paper are also consistent across varying cultures. Moreover, though identity theory research suggests that self-verification striving is thought to be universal (Stryker and Burke, 2000), how it manifests could plausibly differ across cultures. This may also be the case for multicultural identity. Thus, a fruitful avenue for future research is to collect data from multiple countries at the extreme ends of theoretically informed cultural dimensions to test the generalizability of the identity theory explanation of CQ formation. For example, would

probing responses across low-context and high-context cultures (Meyer, 2014) reveal substantive differences in self-verification striving? Alternatively, would managers socialized into highly culturally tight or highly culturally loose nations (Gelfand et al., 2011) leverage cross-cultural experiences to build a multicultural identity to the same extent? Though the field seeks generalizable explanatory and predictive power, advancing knowledge of such culture-specific contingencies is key.

Fifth and finally, we measured cross-cultural experiences using a formative index that captures a range of cultural ‘encounters’ that people experience, including those that give them first-hand experiences living and working in another country as well as those that they may have ‘inherited’ by being born into a culturally diverse family. It is a straightforward way to capture a range of cross-cultural experiences when the goal is to understand the relationship of cross-cultural experiences in general on multicultural identity and CQ. Researchers, however, would be well placed in expanding this line of research by looking into the relationships between unique or more idiosyncratic forms of cross-cultural experiences and perhaps unpacking the role of particular dimensions of CQ in more granular ways. Future research is also recommended to develop more nuanced assessments of international experience that differentiate the quality and quantity of an individual's cross-cultural experiences (e.g., number/names of countries visited, the purpose of visit, length of stay, etc.). From a practical point of view, the collection of such data using survey questionnaires is likely to be challenging because participants may find it cognitively taxing to provide detailed information. We encourage researchers to consider using other approaches (e.g., interviews and experiments) to collect the data.

6. Conclusion

We asked an important question to advance theoretical understanding of the relationship between cross-cultural experience and CQ: *when* and *how* does cross-cultural experience relate to CQ? We answered these questions by drawing from identity theory and examining the intervening role of multicultural identity. Those who possess this are more likely to engage deeply with their cross-cultural experiences and are thus better placed to transform those experiences into CQ. We also found that the extent to which one engages in self-verification striving amplified the cross-cultural experience-CQ link. Identity matters regardless of the way cross-cultural experience is conceptualized and measured. In sum, this study helps to close the gap in understanding how an increasingly essential asset can be cultivated from an increasingly accessible category of experience among businesspeople.

Appendix A. Types of global employees (Shaffer et al., 2012)

Which of the following best describes your current global work experience (if more than one option describes your work, pick the one that best reflects the majority of your work responsibilities)?

1. Corporate expatriate: An employee who is temporarily relocated by their organization to another country, to work and live, usually for several years, to complete a specific task or accomplish an organizational goal.
2. Short-term assignee: An employee who has an international assignment that is less than one year (i.e., longer than a business trip yet shorter than a typical corporate expatriate assignment). The employee does not relocate their household for short-term assignments.
3. International business traveler: An employee who takes frequent international business trips to foreign countries to conduct work on foreign markets, units, projects, and the like, usually for periods of a week or so.
4. International commuter: An employee who lives in one country and regularly (i.e., daily or weekly) commutes to work in another country.
5. Global virtual team member: Employees working in global geographically dispersed teams who carry out interdependent tasks and communicate mainly through information and communication technologies. Such team members typically remain in their home country to carry-out the majority of their work responsibilities.
6. Global domestics: Employees who primarily remain in their home country but have responsibilities and/or interactions with individuals in or from other countries (i.e., employees who interact with clients or customers in other countries).

Appendix B

B.1. Validation of multicultural identity

This sample consisted of business school students at a large research-intensive Midwestern University. Participants were 177 undergraduates taking management courses. Extra course credit was provided for taking part on a voluntary basis, and this resulted in a usable sample of 151 respondents (85% response rate). The sample consisted of 66% males and respondents had an average age of 21.19 ($SD = 1.99$).

To validate the multicultural identity scale, we conducted a series of tests to demonstrate the convergent validity and discriminant validity of the scale before testing our hypotheses. Convergent validity is established when a measure relates to other measures of that construct or measures of other similar constructs. Discriminant validity is established when the focal measure is distinct from other similar constructs (Campbell and Fiske, 1959; Hinkin, 1998). As we are developing a measure of multicultural identity, we examined the associations and differences between our adapted scale and other theoretically related yet distinct constructs: interest in international business and international entrepreneurial self-efficacy. Multicultural identity refers to the integration of multiple cultural affiliations as part of one's self-concept (Yampolsky and Amiot, 2016). Interest in international business, then, is conceptually linked in

that it taps into deep personal affiliation with being exposed to different cultures. Similar to multicultural identity, international business self-efficacy is also a self-concept, but it represents one's belief of how he or she can perform well in the cross-cultural business context. Multicultural identity was measured using the 7-item scale developed in Study 1. To assess interest in international business, we used the adapted four items (by adding the contextual specification "...with global potential") from Zhao et al. (2005). Sample items include "starting a business with global potential." The Cronbach alpha was 0.93. We used 10 items developed by Pidduck et al. (2020b) to measure international entrepreneurial self-efficacy. Sample items include "think creatively to respond to foreign cultures or markets". The Cronbach alpha was 0.90.

To test convergent validity, we obtained the correlations between multicultural identity with the two constructs. The results showed that multicultural identity was positively and significantly related to interest in international business ($r = 0.33, p < .01$) and international business self-efficacy ($r = 0.33, p < .01$). Therefore, the multicultural identity scale demonstrated adequate convergent validity.

To establish the discriminant validity of multicultural identity, we conducted a series of CFAs to assess whether multicultural identity was distinct from the other two constructs. Specifically, following the suggestions of Shaffer et al. (2016), we compared the fit indices of two models: (1) the unconstrained model in which two latent constructs covary freely with each other, and (2) the constrained model where the covariance of the two constructs was set to 1. The results of all comparisons supported that the unconstrained model had a better fit than the constrained model: interest in international business ($\Delta\chi^2 [\Delta df = 1] = 471.14, p < .01$) and international business self-efficacy ($\Delta\chi^2 [\Delta df = 1] = 1080.68, p < .01$). Hence, these results suggested that multicultural identity had adequate discriminant validity. In summary, through these tests, we established both convergent validity and discriminant validity for multicultural identity.

B.2. Multicultural identity scale

Instruction: Biculturals are those who identify with two cultures. For example, an American-born Chinese can see his/her mainstream (U.S.) and ethnic (Chinese) cultural identities as compatible and integrated, i.e., he/she finds it easy to integrate both cultures in his/her daily life. Some people can indeed identify with more than two cultures as the world is getting more global nowadays. More generally, we refer to those who identify with more than one culture as *multicultural* people.

The following statements describe multicultural identification. To what extent does each of them accurately describe you? (1 = totally inaccurate; 2 = inaccurate; 3 = neutral; 4 = accurate; 5 = totally accurate)

1. I feel strong ties with more than one culture.
2. I feel a strong sense of belonging to more than one culture.
3. I have a strong sense of identification with more than one culture.
4. Overall, my memberships in more than one culture have a great deal to do with how I feel about myself.
5. A feeling of membership in more than one culture is an important reflection of who I am.
6. A feeling of belongingness to more than one culture is important to my sense of what kind of person I am.
7. In general, belonging to more than one culture is an important part of my self-image.

Appendix C. Cross-cultural experience index

1. What percentage of your lifetime have you lived outside your home country? (0–100%)
2. Were you born in a country that is different than where either of your parents were born? (Yes/No)
3. Were you born in a country that is different than where your spouse/partner was born? (Yes/No)
4. Have you studied or received training in a foreign country? (Yes/No)
5. To what extent have you been exposed to a culture other than the culture of your country/cultural background of origin? (0 = None/10 = A great deal)
6. How frequently do you socialize with people different from yourself in terms of cultural background? (1 = Never/4 = Always)
7. How frequently do you socialize with people different from yourself in terms of nationality? (1 = Never/4 = Always)
8. How frequently do you socialize with people different from yourself in terms of cultural values? (1 = Never/4 = Always)
9. Do you speak a foreign language fluently? (Yes/No)

Appendix D. The conditional indirect effects of cross-cultural experience on four CQ factors

	Indirect effect	
	Estimate	95% CI
Cross-cultural experience → multicultural identity → metacognitive CQ		

(continued on next page)

(continued)

	Indirect effect	
	Estimate	95% CI
High self-verification striving (+1SD)	0.05	[0.02, 0.07]
Low self-verification striving (-1SD)	0.03	[0.01, 0.05]
Difference between low and high self-verification striving	0.02	[0.001, 0.03]
Cross-cultural experience → multicultural identity → cognitive CQ		
High self-verification striving (+1SD)	0.11	[0.07, 0.14]
Low self-verification striving (-1SD)	0.08	[0.05, 0.10]
Difference between low and high self-verification striving	0.03	[0.003, 0.06]
Cross-cultural experience → multicultural identity → motivational CQ		
High self-verification striving (+1SD)	0.05	[0.03, 0.08]
Low self-verification striving (-1SD)	0.04	[0.02, 0.06]
Difference between low and high self-verification striving	0.02	[0.001, 0.03]
Cross-cultural experience → multicultural identity → behavioral CQ		
High self-verification striving (+1SD)	0.06	[0.03, 0.08]
Low self-verification striving (-1SD)	0.04	[0.02, 0.06]
Difference between low and high self-verification striving	0.02	[0.001, 0.03]

Note. CI = confidence interval; Bootstrap samples = 5000; All estimates are significant. CQ = cultural intelligence; SD = standard deviation.

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