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Western and Heritage Cultural Internalizations Predict EFL Students' Language Motivation and Confidence

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Western and Heritage Cultural Internalizations Predict EFL Students' Language Motivation and Confidence

Internalizing Western culture can facilitate English-as-a-foreign-language (EFL) learners' motivation to learn and confidence to use English. However, the role of heritage cultural internalization and the interactive impact of Western and heritage cultural internalizations on English learning is unclear. We surveyed 172 EFL students from Macao and found that those who internalized Western culture to a greater extent indeed held more a positive view towards English learning and were more autonomous to learn, which in turn predicted their confidence in using English. However, for those who internalized Western culture to a lesser extent, internalizing Chinese culture was also linked to positive attitudes and English use confidence. These findings suggest that a strong heritage cultural orientation is also important for EFL learners' English language development, especially among those do not internalize Western culture. This research suggests that language researchers and teachers should pay attention to learners' orientations towards not only the target culture but also their heritage culture.

Keywords: cultural identity, self-determination theory, language motivation, language confidence, EFL, Macao

Introduction

Learning English has become a symbol of Western-led globalization. An estimated 600 million people in the world are learning and using English as a foreign language (EFL). In many non-English-speaking countries, the development of citizens' English ability and intercultural competence is a major goal guiding political, economic, and educational agendas (Crystal 2006). Globalization also influences people's cultural identities, lifestyles, values and beliefs, and communication patterns (Arnett 2002). Adapting to these socio-cultural and psychological dynamics has become a central part of many people's lives (Chen, Benet-Martínez, and Bond 2008). In response to the impact of globalization on English education and cultural changes, a growing body of research has focused on how the cultural self and identity relate to English learning motivation. Many studies have demonstrated that EFL students who are exposed to and internalize Western culture¹ to a larger extent have more positive attitudes towards learning English, and are more motivated to learn and confident to use English (e.g., Awwad, Stapa, and Maasum 2015; Chen et al. 2008; Lai 2011; Peng and Woodrow 2010; Ng and Lai 2011). That is, through internalization, the process through which culture becomes part of the self, EFL students will become more motivated to learn and confident to use English (cf. Noels 2009).

Although it is clear that internalizing Western cultural values and practices are linked to English motivation and confidence (e.g., Awwad et al. 2015; Lai 2011; Peng and Woodrow 2010), it is unclear what role of heritage cultural internalization has for EFL motivation. Recent research suggests that the internalization of the heritage culture provides a psychologically secure base and increases people's openness to exploring new cultures, including learning

¹ Western culture is typically considered to be the beliefs, values, and practices from areas that have some historical origin or association with northwest Europe, including some British-descent societies such as Canada, the United States, Australia, and New Zealand (Henrich, Heine and Norenzayan 2010).

foreign languages (Hong, Fang, Yang, and Phua 2013). Thus, understanding the role of heritage cultural internalization may provide additional insights into language motivation research. In this study, we examine how EFL students' Western and heritage cultural internalization predicts their attitudes towards English, autonomous motivation to learn English, and confidence to use English. In the following section, we first conceptualize the links between language attitude, self-determined motivation, and confidence in an EFL context, and then move on to discuss how Western and heritage cultural internalization may relate to these aspects of language learning motivation.

Language Attitudes, Autonomous Motivation, and Confidence

Language confidence, which refers to self-evaluation of communicative competence, coupled with a lower level of anxiety using the target language, is a critical ingredient for learners' willingness to use a target language and language success (Clément 1980). Language confidence is argued to be a more proximal predictor of language use than actual language competence; it supports learners' desire to use the language (see Sampasivam and Clément 2014; MacIntyre, Dörnyei, Clément, and Noels 1998). Research on EFL learning also shows that learners with a high level of confidence in English ability were also more willing to use English, which enabled them to achieve success in English (Öz, Demirezen, and Pourfeiz 2015; Peng and Woodrow 2010; Yashima 2002).

Among many individual difference factors, language learning attitudes (i.e., relatively positive or negative evaluations about learning a language) are important for developing language confidence (Gardner 1985; Sampasivam and Clément 2014). Gardner's (1985) Socio-Educational Model claims that language learning attitudes, paired with language aptitude, determine linguistic and non-linguistic outcomes, including language confidence and

competence. Clément's (1980) Social Context Model further suggests that language confidence is influenced by learners' positive and negative feelings towards learning the target language, particularly in contexts where there is an opportunity for social interaction in the target language. The heuristic model of willingness to communicate (McIntyre et al. 1998) also claims that attitude is an important precursor of language confidence, which in turn predicts willingness to communicate. Research in EFL contexts has shown that attitudes towards toward English are strongly associated with learning behaviours; learners who have more positive attitudes towards English put more effort into achieving their learning goals, and feel more confident to use the language (Gao, Zhao, Cheng and Zhou 2007; Öz, Demirezen, and Pourfeiz 2015; Yashima 2002).

In addition to attitudes toward learning English, EFL learners' motivational orientations for learning English has also implications for their English use confidence. Orientations refer to reason(s) or motive(s) for learning a language; they colour the person's experience of engaging in that activity. Some orientations facilitate language learning while others undermine learners' confidence and learning outcomes (Noels, Pelletier, Clément, and Vallerand 2000). Self-Determination Theory (SDT; Ryan and Deci 2017.) is a useful framework for understanding learners' diverse motivational orientations (i.e., the quality of motivation rather than the quantity of motivation). According to SDT, a continuum of self-determined orientations can be categorized into three types of orientations: Autonomous motivation, controlled motivation, and amotivation (Ratelle, Guay, Vallerand, Larose, and Senecal 2007). Autonomous motivation represents reasons that determined by the learners' own actions. To these learners, language learning is associated with inherent interests, such as enjoyment and challenge (i.e., intrinsic motivation), as well as achieving goals that they identify as personally valuable (i.e., identified

regulation). Controlled motivation represents motives in which determiner of the action (i.e., the locus of causality) is other than the person's fully self-endorsed purpose, including external and introjected orientations. External regulation refers to reasons determined by external factors outside the person, such as satisfying external demands (e.g., learning the language to get a required course credit). Introjected regulation refers to self-imposed pressures to avoid guilt or obtain approval. Amotivation reflects an absence of both autonomous and controlled motivation, such that people see little or no purpose for learning English.

Previous research shows that autonomous motivation tends to be associated with positive outcomes, such as persistence, self-confidence, and language achievement, whereas controlled motivation and amotivation tend to be linked to negative outcomes, such as language anxiety and unwillingness to communicate or engage in the learning process (for a review, see Noels, Chaffee, Lou, and Dincer 2016). Thus, we maintain that learners who are more autonomously motivated are more likely to approach challenges, and thus be more confident and willing to use the target language (Lou, Chaffee, Vargas Lascano, Dincer, and Noels 2018). Previous studies in EFL contexts also found that intrinsically motivated learners were more likely to adopt different learning strategies and have higher grades (e.g., Pae 2008; Zhou and Zhou 2018). In summary, we hypothesized that language attitudes and autonomous motivation would jointly predict confidence in using English.

Cultural Internalizations and Language Learning Motivation

There is a long tradition of research using different language motivational constructs to conceptualize how internalizing the target ethnolinguistic culture into one's sense of self is important for language motivation. For instance, Gardner's (1985) and Clément's (1980) models claim that integrativeness – the desire to interact with and potentially identify with the target

culture – predicts the intensity of effort people put into learning a second language, and research shows that those who want to become psychologically closer to the target ethnolinguistic community feel more positive towards and agentic about learning the target language (see also Goldberg and Noels 2006; Lai, Gao, and Wang 2015). Through the construct of ‘investment,’ Norton and Toohey (2011) argued that learners’ motivation to acquire symbolic resources (e.g., identity and social status) associated with the target cultural community explain their investment in a language. Shifting from an external social group, through the lens of the self, Dörnyei (2009) proposed the L2 Motivational Self-System and argue that those who envision themselves connecting with the target language group are more motivated to learn the language (see also Thorsen, Henry, and Cliffordson 2017). Although most EFL learners have little direct interaction with the target language speakers and cultural community. EFL learners’ imagined contact and remote, mediated contact can explain identification processes underpin their learning motivation (Dörnyei 2009; Gao et al. 2007).

However, one’s internalization of heritage culture may also play an important role in their language learning, depending on how one negotiates the two cultures (Clément 1980; Doucerain 2017; Lambert 1967). For example, some learners may perceive the target culture as a threat to their own cultural identity, in which case they are unmotivated to learn the target language (Hinenoya and Gatbonton 2000; Hu 2002). Research in acculturation (Berry 2008) offers a theoretical foundation to understand how internalizations of heritage and foreign cultures interactively influence psychological and behavioural outcomes. Within a given society, individuals vary in the extent to which they internalize transmitted norms, values, and practices into their self, including identifying with the clothing, food, pace of life, and cultural activities that are associated with the culture (Chirkov et al. 2003; Ward and Kennedy 1994). For some

people who lived in a society that exposed to Western culture due to globalization, they may constantly and seamlessly negotiate their bicultural identity when interacting with different cultural practices (Hong, Zhan, Morris, and Benet-Martínez 2016). As a result, some tend to strongly internalize both cultures, some internalize one culture more than the other, and some do not internalize either culture.

Although research in acculturation (Berry 2008) has been mainly conducted in the immigration contexts, it provides implications for understanding how people internalizations with two seemingly different cultures may influence language motivation. One important assumption from the acculturation model is that the degree of internalization of either culture is orthogonal; people can internalize more than one culture and language without necessarily losing their heritage culture and language (e.g., Berry et al. 2006). On the one hand, internalizing the host culture allows migrants to adapt and function in the new society. On the other hand, a sense of belonging to one's heritage culture provides people with the reassurance and confidence that is required to explore and adapt to a new society, resulting in a better psychological adjustment (Berry et al. 2006). Similarly, the cultural attachment theory suggests that attachment to the heritage culture can create a psychologically secure base and increase people's openness to explore new cultures; those who are securely attached to heritage culture are more likely to maintain a positive attitude towards learning other cultures (Hong et al. 2013; Fu, Morris, and Hong 2015).

Based on the acculturation model and findings on immigrants, researchers conceptualized globalization-based acculturation (Berry 2008; Chen, Benet-Martínez, and Bond 2008; Ng and Lai 2011) and remote acculturation (Ferguson, Tran, Mendez, and van de Vijver 2017). Both models agree that acculturation to the Western-led globalize culture resemble immigrant

acculturation in Western countries. Through indirect or/and remote interactions with Western culture, people may negotiate multiple cultural identities and become bicultural and multicultural (Ferguson et al. 2017). Research based on these acculturation models suggests that EFL learners can simultaneously internalize both the target culture and the learners' own culture (Chen et al. 2008; Ng and Lai 2011).

Based on the cultural attachment theory, internalization of one's heritage culture is also important for people to explore and adapt to the Western-led globalized culture; it fosters one's openness and confidence to explore foreign cultures (Berry et al. 2006; Fu, Morris, and Hong 2015; Hong et al. 2013). Given that learning English is a key to adapting to the Western-based globalized culture, we argue that a strong sense of connection with home culture may help EFL learners to sustain their positive attitudes toward the language and their self-determined motivation to learn other culture and language. This may be especially true for those who do not internalize Western culture. A recent study showed that migrants who were exposed to home cultural practices felt more adapted to Western culture; and this is true only among those who were insecure about the Western culture but not those who were secure (Fu, Morris, and Hong 2015). The positive effect of attaching to home culture do not manifest among those who feel secure about the Western culture because they are already open to and perhaps adapted to the Western culture. Applying this finding to the context of learning English as a foreign language, we predict that for those who already internalize Western culture, their English motivation is presumably high, and therefore their internalization of home culture may not benefit their English motivation. In contrast, for people who do not internalize Western culture, internalizing heritage culture can provide them with a psychologically secure base that increases their openness to explore other culture, reflecting on their attitudes and motivation to learn foreign

languages. Thus, they would feel more positive and intrinsically motivated to learn, which in turn enhance their confidence to use English.

The Present Study

Language motivation is intertwined with the construction and negotiation of cultural identity (Norton and Toohey 2011). Previous research presumes that people who internalize the Western culture are more motivated to learn English. One problem with this presupposition is that it does not consider the role of the learners' relationship with their home culture for foreign language learning. In this study, we examined how EFL learners' internalizations of Western and heritage cultures were interactively associated with their English attitudes, self-determined motivation, and language confidence (see Figure 1).

<<Insert Figure 1 about here>>

Specifically, we made four predictions. First, we predicted that Western cultural internalization would be positively linked to English attitudes, self-determined motivation, and language confidence (*hypothesis 1*). Second, in accordance with findings regarding globalization-based acculturation (Chen, Benet-Martínez, and Bond 2008; Ng and Lai 2011), remote acculturation (Ferguson et al. 2017) we hypothesized that Western cultural internalization would moderate the link of Chinese cultural internalization on English attitudes, self-determined motivation, and language confidence. Specifically, according to the cultural attachment theory (Fu et al. 2015), we expected that for learners who have little internalization of Western culture, maintaining a strong internalization of heritage culture would positively predict English attitudes, motivation, and confidence (*hypothesis 2*). Third, based on previous studies about the links among cultural internalizations, language learning attitudes and motivation, and language use confidence (Awwad, Stapa, and Maasum 2015; Noels et al. 2016; Peng and Woodrow 2010;

Yashima 2002), we predicted that language attitudes and self-determined motivation would mediate the association between Western cultural internalization and English confidence (*hypothesis 3*). Together, we predicted that for those who internalized Western culture to a lesser extent, Chinese internalization would positively predict English use confidence through the mediation of learning attitude and motivation (*hypothesis 4*).

To examine these hypotheses, we conducted our research in Macao, China. The cultural and sociolinguistic background of Macao provides an excellent condition to examine our research questions. Macao Chinese, consisting of 95% the population, are strongly influenced by Chinese culture and Western culture due to a long history of colonization by Portugal (for 442 years until 1999; Bray and Koo 2004). In Macao, Chinese is considered the dominant language and cultural group relative to the English and Portuguese groups (Bray and Koo 2004). Although Chinese and Portuguese are the official languages, English is more widely used and learned than Portuguese.² Regarding education, the English language is one of the core subjects in the curriculum from kindergarten to high school, and it is used as the medium of instruction at most universities (Botha 2013). English also serves as an intercultural communication tool in tourism, which is the backbone of the Macao economy (Bray and Koo 2004; Young 2009). Given the strong influence of the English language and Western culture, most Macao university students claim that understanding Western culture and mastering English is important to them (Yan and Moody 2010). In summary, EFL learners in Macao, who are largely exposed by heritage Chinese

² Although Portuguese plays an important role in the legal system in Macao, only 0.6% of the residence speaks Portuguese, and universities in Macao are administrated in Chinese and English, not Portuguese (Young 2009). Because its vitality is low, Portuguese is not considered further in this study.

culture and Western culture, may provide an ideal ground to study how cultural internalization is linked to language motivation.

Method

Participants and Procedure

The participants were 172 Macao citizens who were university students, ethnic Chinese, and spoke Cantonese as their native language (78 females, 93 males, and 1 missing information). Their mean age was 21.65 years (range from 18 to 26 years, $SD = 1.83$). Macao students usually start to learn English in kindergarten and use English as the medium of instruction at universities. Thus, students have at least 12 years of English education before attending university (Botha 2013). Respondents were recruited online and were asked to complete a questionnaire presented in traditional Chinese. Participants received a gift card after completing the questionnaire.

Measures

The measures were selected from established questionnaires, translated into Chinese, and adapted to the Macao context. Participants rated their agreement on a seven-point Likert scale (“1 = totally disagree” to “7 = totally agree”), unless otherwise stated. Negatively worded items were reversed coded before mean were calculated. Cronbach’s alpha (α) are presented in brackets.

Cultural internalizations

Adapting Ward and Kennedy’s (1994) Acculturation Index (AI; see Appendix A), participants were asked the questions, “to what extent do you identify with the following aspects of Chinese/Western culture?” (from “1 = not at all” to “7 = completely”). Each subscale contains 15 items, including clothing, pace of life, food, religious beliefs, material comfort, recreational

activities, family life, accommodation/residence, values, friendships, communication styles, cultural activities, language, employment activities, and consumption attitudes. High scores indicated a high level of Chinese cultural internalization ($\alpha = .88$) or Western cultural internalization ($\alpha = .79$).

English learning attitudes

The Language Attitude scale (Gardner, Tremblay, and Masgoret 1997) consists of four positive items (e.g., “English is really great”) and four negative items (e.g., “I find the study of English very boring”) about attitudes towards learning English. A high score reflected more positive attitudes towards learning English ($\alpha = .89$).

Motivational orientations

The Chinese version of the Language Learning Orientations Scale (Li 2006; Noels et al. 2000) measured participants’ self-determined motivation for learning English. It included subscales for amotivation (3 items; e.g., “I don’t know, I can’t come to understand what I am doing studying English”; $\alpha = .77$), external regulation (2 items; e.g., “In order to have a better salary later on”; $\alpha = .75^3$), introjected regulation (3 items; e.g., “Because I would feel guilty if I didn’t know a second language”; $\alpha = .51^4$), identified regulation (3 items; e.g., “Because I think it is good for my personal development”; $\alpha = .71$), and intrinsic motivation (9 items; e.g., “For the satisfied feeling I get in finding out new things”; $\alpha = .88$). As suggested by previous research, autonomous

³ One item in the external regulation dimension was removed because of the low reliability ($\alpha = .41$). We found that incorporating this item did not change the patterns of the findings.

⁴ The internal reliability for the introjected regulation dimension was low, and deleting any items did not improve the reliability. Although this subscale had a lower reliability, we did not interpret findings based simply on this subscale; we combined introjected regulation and external regulation items in creating controlled motivation ($\alpha = .64$).

motivation was calculated as the mean of intrinsic orientation items and identified orientation items ($\alpha = .64$), whereas controlled motivation was calculated as the mean of external and introjected regulation items ($\alpha = .89$), and both of which contrasted with amotivation ($\alpha = .77$; Guay et al. 2013; Ratelle et al. 2007).

English use confidence

The Chinese-translated language confidence scale measured participants' English confidence (10 items; Gardner, Tremblay, and Masgoret 1997). Two sample items are: "When the English language is spoken to me, I feel I can understand practically everything" and "Regardless of how much English I know, I feel confident about using it." A higher score indicated a stronger English use confidence ($\alpha = .89$).

Results

Descriptive and Correlational Analyses

The descriptive and correlational analyses results are presented in Table 1.⁵ Regarding cultural internalizations, consistent with Berry's acculturation model (2008), the non-significant correlation between internalizations of Western and Chinese cultures ($r = .04, p = .60$) suggested that these two dimensions were independent. In addition, we found that Chinese cultural internalization did not predict language attitudes, motivation orientations, and English confidence.

<<Insert Table 1 >>

⁵ We found a gender difference on language attitude ($F = 5.00, p = .03, \eta_p^2 = .03$), but no other variables. Male students ($M = 4.63, SD = 1.05$) held more negative attitudes towards learning English than female students ($M = 5.01, SD = 1.07$). Including gender as a covariate did not change the conclusions of the results.

Consistent with *hypothesis 1*, we found that Western cultural internalization is negatively linked to amotivation, positively linked to autonomous motivation, English attitudes, and English confidence. Those who have stronger Western cultural internalization also have more positive attitudes towards English, feel less amotivated but more autonomous in learning English, and feel more confident in using English. However, Western cultural internalization is not significantly related to controlled motivation. Therefore, we did not further analyze the role of controlled motivation in testing hypothesis 3.

Moderation Analyses

To test whether Chinese and Western cultural internalizations interactively influence English, attitude, motivation, and confidence (i.e., hypothesis 2), we ran five moderation analyses (see Table 2). Specifically, we regressed the mean-centered scores of Chinese cultural internalization, Western cultural internalization, and their interaction on each of English learning attitudes, amotivation, controlled motivation, autonomous motivation, and English using confidence. We found that the interaction between Chinese and Western cultural internalizations significantly predicted English learning attitudes (see Figure 2) and English use confidence (see Figure 3), over and beyond any main effects for each of these internalizations. Simple slope analyses further revealed that Chinese internalization was positively associated with English attitudes and English confidence when Western internalization was low ($-1SD$; $b = .32$, $SE = .13$, $t = 2.50$, $p = .01$ for English attitude; $b = .41$, $SE = .12$, $t = 3.42$, $p < .001$ for English confidence), but not significant when Western internalization was high ($+1SD$; $b = -.08$, $SE = .11$, $t = -.67$, $p = .50$ for English attitude; $b = -.08$, $SE = .11$, $t = -.70$, $p = .48$ for English confidence). That is, Chinese cultural internalization predicts English attitudes and confidence only for learners who have little internalization of Western culture.

However, inconsistent with hypothesis 2, the interaction between Chinese and Western cultural internalizations did not significantly predict autonomous motivation, amotivation, or controlled motivation. Therefore, we did not further analyze the role of autonomous motivation, amotivation, or controlled motivation in testing hypothesis 4.

<<Insert Figure 2 and Figure 3>>

Path Analysis

We used Mplus 7.0 (Muthén and Muthén 2010) to conduct path analysis and analyze the multiple sequential paths, mediations, and moderated mediation in a more comprehensive fashion. The hypothesized model (in which Chinese cultural internalization, Western cultural internalization, and their interaction predicted English using confidence through English learning attitudes, amotivation, controlled motivation, autonomous motivation) fits the data well ($\chi^2 = 3.34$, $df=3$, $p = .34$, CFI = 1.00; RMSEA = .03; SRMR = .02; see Figure 4).⁶ This model explained 44% of the variation in English confidence. To test the hypothesized indirect effects, we applied a resampling method using 5000 bootstrapping samples to generate confidence intervals (CI) for assessing the magnitude and significance of the indirect effects of multiple mediators⁷. A 95% CI does not contain 0 indicates a significant effect ($p < .05$).

<<Insert Figure 4 here>>

⁶ The model test statistics included Chi-square ($p > .05$ is good fit), Comparative Fit Index (CFI $> .95$ is good fit), Root Mean Squared Error of Approximation (RMSEA $< .05$ is good fit), and Standardized Root Mean Square Residual (SRMR $< .08$ is good fit; Kline 2011). The modification index did not suggest additional paths should be added.

⁷ Bootstrapping is a nonparametric procedure that randomly resamples from the observed sample to estimate a more accurate result than the traditional mediation methods. It is a robust statistical method that can estimate confidence intervals for indirect effects (see Hayes 2013).

We first examined whether English learning attitudes and autonomous motivations mediate the association between Western cultural internalization and English confidence (i.e., hypothesis 3). We found a significant indirect effect, such that Western cultural internalization predicted English confidence through English learning attitudes ($b = .18$, $SE = .07$, 95% CI = [.072, .361]) and autonomous motivation ($b = .07$, $SE = .05$, 95% CI = [.001, .187]). However, amotivation ($b = -.03$, $SE = .03$, 95% CI = [-.104, .010]) did not significant mediate the link between Western cultural internalization and English confidence. Overall, students who internalized Western culture to a larger extent felt more confident using English, and it was partially because they felt more autonomous and had more positive attitudes towards learning English (but not because they were less amotivated).

For people who internalized Western culture to a lesser extent, we tested whether their Chinese internalization positively predicted English confidence through English learning attitudes (i.e., hypothesis 4). We also found that the interaction between Chinese and Western cultural internalizations indirectly predicted English confidence via English attitudes ($b = -0.14$, $SE = .07$, 95% CI = [-.303, -.039]). The effect of the interaction between Chinese and Western cultural internalizations on confidence was no longer significant, suggesting a full moderated mediation. Furthermore, the conditional indirect effect showed that the indirect effect of Chinese cultural internalization on English confidence was significant only when Western internalization was low ($-1SD$); it was not significant when Western internalization was high ($+1SD$; see Table 3). Stated otherwise, for students who internalized Western culture to a lesser extent, if they internalized Chinese culture, they held a more positive attitude towards learning English, which in turn predicted their English use confidence.

<<Insert Table 3 here>>

Discussion

Applying the bi-dimensional model of acculturation in an EFL context (Berry 2008; Chen, Benet-Martínez, and Bond 2008; Ng and Lai 2011; Ferguson et al. 2017), this study examined the relation between cultural internalization and language motivation. We found that Macao students' Western cultural internalization was consistently linked to their quest for English competence: EFL learners who internalized Western culture greatly had a more positive attitude about learning English, felt more autonomously motivated and less amotivation, and more confident in the use of English. Importantly, internalizing Western culture was not the only pathway. For those who internalized Western culture to a lesser extent, they also felt more positive about learning and confident about using English if they had a strong connection with their heritage culture. Internalizing heritage culture provides those students with a sense of meaning and psychological security that increase their positive attitudes to learn, which in turn predicted their confidence to use English. In the following, we discussed the new insights into understanding the diverse ways that Western and heritage cultural internalizations are linked to English motivation, and then discussed some practical implications for intercultural learning in an EFL classroom.

Cultural Internalizations and EFL Learning

The result highlights that English learning attitude and autonomous motivation explain why cultural internalization predicts English confidence. Students who strongly internalized Western cultural elements into their sense of self believed that learning English was more interesting and consistent their intrinsic goals, partially because they believed investing in English learning could satisfy their interests and vision for contact with Western culture (Dörnyei 2005; Gardner 1985). In turn, learners who hold positive beliefs and felt more autonomous in learning English

may put more effort and use more effective learning strategies to improve their language competency, and have greater confidence to use the target language (Peng and Woodrow 2010; Soenens and Vansteenkiste 2005).

Although internalizing Western culture to a lesser extent might result in negative consequences, the implication of weak internalization of Western culture is, in fact, more complicated. We found that western cultural internalization moderates the link of Chinese cultural internalization on English attitudes, which in turn predict language confidence. For learners who feel disconnected from Western culture, internalizing the home culture may provide them with a sense of meaning and psychological security that increases their openness to learn foreign cultures, reflecting on their positive attitudes towards learning English and confidence to use English (cf. Fu, Morris, and Hong 2015). On the other hand, for those who had already internalized Western culture, internalizing home culture does not necessarily make them feel more positive or confidence because those who are connected with the Western culture already have a strong positive attitude to learn and felt confident about using English. However, the interaction between Chinese and Western cultural internalizations did not significantly predict amotivation, controlled motivation, and autonomous motivation. It seems that internalizing the home culture provides those learners with a positive learning attitude and confidence to explore other cultures (Hong et al. 2013), but not necessarily how autonomous they feel about learning the language. It is possible that more immediate social and educational factors, such as interpersonal dynamics in the classroom are more directly important for motivation.

In summary, EFL learners differ not only in their internalization of a foreign culture, but also in the internalization of their heritage societal values, cultural practices, and social norms. These two cultural internalizations were unrelated, suggesting that internalizing one culture did

not necessarily imply the loss or enhancement of the other. Internalizing the heritage culture did not create a psychological conflict about learning English (Bary and Koo 2004); rather it helps those who do not internalize Western culture feel more positive about learning and using English. Importantly, we found that EFL learners who internalize neither Western culture nor their heritage culture have little interest to learn about foreign language and culture, and feel anxious to use English. Therefore, internalizing either or both Chinese and Western cultures is necessary to sustain EFL learners' attitudes toward English to learn and in turn their confidence to use English.

Practical Implications: Intercultural Learning in EFL Classrooms

It is a common aspiration that language education should develop not only learners' linguistic competence, but also their cultural awareness and intercultural competence (Alptekin 2002; Crowther and De Costa 2017; Nault 2006). By incorporating cultural elements, such as music, art, food, and other aspects of contemporary culture, and otherwise encouraging connections with people from the culture, EFL teachers can help learners to go beyond developing linguistic knowledge and facilitate their vision and internalization of the target community's culture into their own sense of self (Nault 2006). Research showed that learners who were exposed to culturally based learning had more positive attitudes towards the target language and were more motivated to learn it (Cheung 2001; Lange and Paige 2003). In line with this research, our findings also suggested that helping students to understand and internalize Western culture might enhance their motivation to learn and their confidence to use the language.

However, some foreign language learners do not internalize and even resist the target culture (Hinenoya and Gatbonton 2000). These learners may reject the norms and values of English-speaking nations and/or of globalization more generally, which might demotivate them

and hinder their English development (Hu 2002). For example, they may remain silent in their classrooms and avoid investing time into practicing the language (Le Ha and Li 2014). EFL educators should not ignore these students but rather acknowledge that foreign language learners have different cultural orientations and expose them to diverse cultural knowledge, including their heritage culture. For example, given that our findings suggest that internalizing the heritage culture may enhance motivation for learners who do not internalize Western culture, establishing associations between learning English and aspects of the home culture may help these students to better understand the new linguistic and cultural knowledge (Alptekin 2002). This suggestion is aligned with the multicultural model of English as a lingua franca, which suggests that the English classroom should incorporate regional cultures that are relevant to learners (Crowther and De Costa 2017; Wang and Kirkpatrick 2013). Following this model in other Asian countries, students in Macao may learn English more efficiently if classrooms provide students with more chances not only to familiarize them with the Western culture, but also link the English language and Western culture to their local language and regional culture (Wang and Kirkpatrick 2013).

Future Directions

There are at least three limitations to this research that need to be addressed in future studies. First, the cross-sectional method provides a snapshot for how cultural internalizations are linked to language confidence, but it does not allow us to make the directional conclusion that cultural internalizations fully or partially cause language confidence, nor does it allow tests of complex and dynamic inter-relations. To test the causal link, experimental procedures, such as cultural priming, could test whether exposure to one's heritage culture can benefit foreign language learning for those who reject foreign cultures (e.g., Fu, Morris, and Hong 2015; Ng, Ng, and Ye 2016). However, it is also possible that language confidence predicts one's cultural identity

(Sampasivam and Clément 2014; Phinney 2003). For example, people who are confident using English may be more motivated to learn the language and spend more time interacting, directly and indirectly, with the target cultural group, consequently internalizing the target culture to a greater extent (Noels et al. 2016).

The relations among identification, motivation, and confidence are likely even more complex and dynamic than an experimental design would capture. Thus, future qualitative and longitudinal research relations between how people build and negotiate their cultural identity, on the one hand, and how they build their motivation and confidence in target languages, on the other hand. The development of language confidence and cultural internalization are arguably dynamic processes that are closely tied to learners' interactions in different social contexts (Norton and Toohey 2011; Sampasivam and Clément 2014). Not only does the relation between language development and cultural internalization interact with the social contexts, the relation may also interact with other personal characteristics, such as personality and mindsets. For example, people who are high in openness and extraversion may more likely to explore, learn and eventually internalize other cultures and languages (e.g., Wilson, Ward, and Fischer 2013), as well as being more confident to use English (Ożańska-Ponikwia and Dewaele 2012). People's cultural internalization may also shape their mindsets about language learning, which influence their motivation and confidence (Lou and Noels 2017; 2018). Other personal characteristics, such as opportunities for Western cultural exposure (e.g., use of Western media, travel and live abroad), can also provide insight into the understanding of cultural internalization, language motivation, and language confidence.

Second, our sample was comprised of a relatively homogenous group of university students from Macao. The results' generalizability should be further established in other contexts

because Macao is a relatively Westernized society due to its colonial history. Similar to learners in many other EFL contexts, English learners in Macao do not have many direct opportunities to communicate in English and they regard English as having an instrumental function (i.e., a school subject or a career in tourism) more than a communication function in daily life (Bray and Koo 2004). More research is needed to understand the relevance of these findings in countries where Western culture has more or less influence. Furthermore, the bicultural experiences and language confidence may differ depending on students' majors, years of learning English, English proficiency, and overseas experience; thus, extrapolating these findings to different populations should be cautious and addressed in future research.

Third, current acculturation models, including the extended models of globalization-based acculturation and remote acculturation, may gloss over nuances in one's cultural identities. Although the integration of two cultural identities benefits language learning, people manage these identities in various ways (Comănaru, Noels and Dewaele 2018). For example, one might identify as polyculturalist, who is dissatisfied with traditional forms of cultural identities and adopts a more multifaceted and/or fluid cultural identity; one might identify as individualist, who rejects clear-cut group-based identities; or one might endorse cosmopolitan, or a global identity, and view themselves as citizens of the world rather than affiliating to specific cultures. To some EFL learners, the notion of integrativeness may refer to an international outlook or an identity with the international community, rather than to any specific Western culture (Yashima 2002). In an era of globalization, it is important to understand how different cultural orientations and identity are linked to learners' attitudes and motivation in foreign language learning.

Conclusion

The complex relations between language and cultural internalization have long interested researchers in social psychology and applied linguistics. Extending the bicultural model of acculturation (Berry 2008) to the EFL context, this study highlights the importance of recognizing EFL learners' orientations towards not just the target culture, but also towards their own culture, in order to understand comprehensively the social psychological process of language learning and promote positive learning outcomes. These findings highlight that the internalization of the heritage culture is particularly important for those who do not internalize Western culture. A strong sense of heritage cultural internalization may help those learners to feel positive and confident to explore foreign cultures and languages. Developing learners' positive attitudes about learning the language and confidence could, in turn, help them to improve competence and to continue to learn and use English even after they leave the classroom.

Supplemental Material

The research questionnaire, in both Chinese and English, is available on the IRIS website (<http://www.iris-database.org>).

References

- Alptekin, C. 2002. "Towards Intercultural Communicative Competence in ELT." *ELT Journal* 56 (1): 57–64.
- Arnett, J. J. 2002. "The Psychology of Globalization." *American Psychologist* 57 (10): 774–83.
- Awwad, A. S., S. H. Stapa, and T. N. Maasum. 2015. "Impact of Globalization and Technological Advancement on EFL Learners' Motivation and Attitude." *International Journal of English and Education* 4(2): 277–283.

- Berry, J. W. 2008. "Globalisation and Acculturation." *International Journal of Intercultural Relations* 32 (4): 328–36.
- Berry, J. W., and F. Hou. 2016. "Immigrant Acculturation and Wellbeing in Canada." *Canadian Psychology*, 57(4): 254-264.
- Berry, J. W., J. S. Phinney, D. L. Sam and P. Vedder. 2006. "Immigrant Youth: Acculturation, Identity, and Adaptation." *Applied Psychology* 55 (3): 303–32.
- Bray, M., and R. Koo. 2004. "Postcolonial Patterns and Paradoxes: Language and Education in Hong Kong and Macao." *Comparative Education* 40 (2): 215–39.
- Botha, W. 2013. "English - Medium Instruction At A University In Macau: Policy And Realities." *World Englishes*, 32(4), 461-475.
- Chen, S. X., V. Benet-Martínez and M. H. Bond. 2008. "Bicultural Identity, Bilingualism, and Psychological Adjustment in Multicultural Societies: Immigration-Based and Globalization-Based Acculturation." *Journal of Personality* 76 (4): 803–37. doi:10.1111/j.1467-6494.2008.00505.x.
- Cheung, C. 2001. "The Use of Popular Culture as a Stimulus to Motivate Secondary Students' English in Hong Kong." *ELT Journal* 55 (1): 55–61.
- Chirkov, V., R. M. Ryan, Y. Kim, and U. Kaplan. 2003. "Differentiating Autonomy from Individualism and Independence: A Self-Determination Theory Perspective on Internalization of Cultural Orientations and Well-Being." *Journal of Personality and Social Psychology* 84 (1): 97–110. doi:10.1037/0022-3514.84.1.97.
- Clément, R. 1980. "Ethnicity, Contact, and Communication Competence in a Second Language." In *Language: Social Psychological Perspectives*, edited by H. Giles, W. P. Robinson and P. M. Smith, 147–154. Oxford: Pergamon Press.

- Clément, R., and B. G. Kruidenier. 1985. "Aptitude, Attitude and Motivation in Second Language Proficiency: A Test Of Clément's Model." *Journal of Language and Social Psychology* 4 (1): 21–37.
- Comănanu, R. S., K. A. Noels, and J. M. Dewaele. 2018. "Bicultural Identity Orientation of Immigrants to Canada". *Journal of Multilingual and Multicultural Development*, 39(6): 526-541.
- Crowther, D., and P. I. De Costa. 2017. Developing Mutual Intelligibility and Conviviality in the 21st Century Classroom: Insights from English as a Lingua Franca and Intercultural Communication. *TESOL Quarterly*, 51(2): 450-460.
- Crystal, D. 2006. "English Worldwide." In *A History of the English Language*, edited by R. Hogg and D. Denison, 420–439. Cambridge: Cambridge University Press.
- Ryan, R. M., and E. L. Deci. 2017. *Self-Determination Theory: Basic Psychological Needs In Motivation, Development, and Wellness*. Guilford Publications.
- Doucerein, M. M. 2017. "L2 Experience Mediates the Relation between Mainstream Acculturation Orientation and Self-Assessed L2 Competence among Migrants." *Applied Linguistics*.
- Dörnyei, Z. 2009. "The L2 Motivational Self-system." *Motivation, Language Identity and the L2 Self*, edited by Z. Dörnyei and E. Ushioda, 9–42. Bristol, UK: Multilingual Matters
- Ferguson, G. M., S. P. Tran, S. N. Mendez, and F. J. van de Vijver. 2017. "Remote Acculturation: Conceptualization, Measurement, and Implications for Health Outcomes." In *Oxford Handbook of Acculturation and Health*, edited by Schwartz, and J. B. Unger. Oxford University Press.

- Fu, J. H. Y., M. W. Morris, and Y. Y. Hong. 2015. "A Transformative Taste of Home: Home Culture Primes Foster Expatriates' Adjustment through Bolstering Relational Security." *Journal of Experimental Social Psychology* 59: 24–31.
- Giles H., and J. L. Byrne. 1982 "An Intergroup Approach to Second Language Acquisition." *Journal of Multilingual and Multicultural Development*, 3:1, 17–40.
- Gao, Y., Y. Zhao, Y. Cheng, and Y. Zhou. 2007. "Relationship between English Learning Motivation Types and Self - Identity Changes among Chinese Students." *TESOL Quarterly* 41: 133-155.
- Gardner, R. C. 1985. *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. London, UK: Edward Arnold.
- Gardner, R. C., P. F. Tremblay, and A. Masgoret. 1997. "Towards a Full Model of Second Language Learning: An Empirical Investigation." *The Modern Language Journal* 81 (3): 344–362.
- Goldberg, E., and K. A. Noels. 2006. "Motivation, Ethnic Identity, and Post-Secondary Education Language Choices of Graduates of Intensive French Language Programs." *The Canadian Modern Language Review*, 62: 423-447.
- Guay, F., C. Ratelle, S. Larose, R. J. Vallerand, and F. Vitaro. 2013. "The Number of Autonomy-Supportive Relationships: Are More Relationships Better for Motivation, Perceived Competence, and Achievement?" *Contemporary Educational Psychology*, 38(4), 375-382.
- Gudykunst, W. B., and K. L. Schmidt. 1987. "Language and ethnic identity: An overview and prologue." *Journal of Language and Social Psychology*, 6: 157–170.

- Ha, P. L., and B. Li. 2014. "Silence as Right, Choice, Resistance and Strategy among Chinese 'Me Generation' Students: Implications for Pedagogy." *Discourse: Studies in the Cultural Politics of Education* 35 (2): 233–48.
- Hayes, A. F. 2013. *An Introduction to Mediation, Moderation, and Conditional Process Analysis*. New York: The Guilford Press
- Henrich, J., Heine, S. J., and Norenzayan, A. (2010). "The weirdest people in the world?" *Behavioral and Brain Sciences*, 33: 61-83.
- Hinenoya, K., and E. Gatbonton. 2000. "Ethnocentrism, Cultural Traits, Beliefs, and English Proficiency: A Japanese Sample." *The Modern Language Journal* 84 (2): 225–240.
- Hong, Y. Y., Y. Fang, Y. Yang, and D. Y. Phua. 2013. "Cultural Attachment: A New Theory and Method to Understand Cross-Cultural Competence." *Journal of Cross-Cultural Psychology* 44 (6): 1024–44.
- Hong, Y. Y., S. Zhan, M. W. Morris, and V. Benet-Martínez. 2016. "Multicultural Identity Processes." *Current Opinion in Psychology*, 8: 49-53.
- Hu, G. 2002. "Potential Cultural Resistance to Pedagogical Imports: The Case of Communicative Language Teaching in China." *Language, Culture and Curriculum* 15 (2): 93–105.
- Lambert, W. E. 1967. "A Social Psychology of Bilingualism." *Journal of Social Issues* 23 (2): 91–109.
- Lange, D. L., and R. M. Paige. 2003. *Culture as the Core: Perspectives on Culture in Second Language Learning*. Greenwich, CT: Information Age Publishing.

- Lai, C., F. Gao, and Q. Wang. 2015. "Bicultural orientation and Chinese language learning among South Asian ethnic minority students in Hong Kong." *International Journal of Bilingual Education and Bilingualism*, 18(2): 203–224.
- Lai, M. L. 2011. "Cultural Identity and Language Attitudes – into the Second Decade of Postcolonial Hong Kong." *Journal of Multilingual and Multicultural Development* 32 (3): 249–64.
- Liu, M., and J. Jackson. 2008. "An Exploration of Chinese EFL Learners' Unwillingness to Communicate and Foreign Language Anxiety." *Modern Language Journal* 92 (1): 71–86.
- Lou, N. M., K. E. Chaffee, D. I. Vargas Lascano, A. Dincer and K. A. Noels. 2018. "Complementary Perspectives on Autonomy in Self-Determination Theory and Language Learner Autonomy." *TESOL Quarterly*, 52(1): 210-220.
- Lou, N. M., and K. A. Noels. 2017. "Measuring Language Mindsets and Modeling Their Relations With Goal Orientations and Emotional and Behavioral Responses in Failure Situations." *The Modern Language Journal*, 101(1): 214-243.
- Lou, N. M., and K. A. Noels. 2018. "Sensitivity to Language-based Rejection in Intercultural Communication: The Role of Language Mindsets and Implications for Migrants' Cross-cultural Adaptation." *Applied Linguistics*.
- MacIntyre, P. D., Z. Dörnyei, R. Clément, and K. A. Noels. 1998. "Conceptualizing Willingness To Communicate In A L2: A Situational Model Of L2 Confidence And Affiliation." *The Modern Language Journal*, 82(4): 545-562.
- Nault, D. 2006. "Going Global: Rethinking Culture Teaching in ELT Contexts." *Language, Culture and Curriculum* 19 (3): 314–28.

- Ng, T. K., S. H. Ng, and S. Ye. 2016. "Assimilation and contrast effects of culture priming among Hong Kong Chinese: The moderating roles of dual cultural selves." *Journal of Cross-Cultural Psychology*, 47(4): 540–557.
- Ng, S., and J. C. L. Lai. 2011. "Bicultural Self, Multiple Social Identities, and Dual Patriotisms Among Ethnic Chinese in Hong Kong." *Journal of Cross-Cultural Psychology* 42 (1): 89–103.
- Noels, K. A. (2009). "The Internalisation of Language Learning into the Self and Social Identity." *Motivation, Language Identity and the L2 Self*, edited by Z. Dörnyei and E. Ushioda, 9–42. Bristol, UK: Multilingual Matters.
- Noels, K. A., K. Chaffee, N. M. Lou, and A. Dincer. 2016. "Self-Determination, engagement, and identity in learning German: Some directions in the psychology of language learning motivation." *FLuL–Fremdsprachen Lehren und Lernen*, 45(2): 12-29.
- Noels, K. A., L. G. Pelletier, R. Clément, and R. J. Vallerand. 2000. "Why Are You Learning a Second Language? Motivational Orientations and Self-determination Theory." *Language Learning*, 50 (1): 57-85.
- Norton, B.y, and K. Toohey. 2011. "Identity, Language Learning, and Social Change." *Language Teaching* 44 (04): 412–46.
- Öz, H., M. Demirezen, and J.Pourfeiz. 2015. "Willingness to Communicate of EFL Learners in Turkish Context." *Learning and Individual Differences* 37: 269–75.
- Pae, T. I. 2008. "Second language orientation and self-determination theory: A structural analysis of the factors affecting second language achievement." *Journal of Language and Social Psychology*, 27(1): 5–27.

- Peng, J., and L. Woodrow. 2010. "Willingness to Communicate in English: A Model in the Chinese EFL Classroom Context." *Language Learning* 60 (4): 834–76.
- Phinney, J. S. 2003. "Ethnic Identity and Acculturation." In *Acculturation: Advances in Theory, Measurement, and Applied Research*, edited by K. M. Chun, P. B. Organista, and G. Marín, 63–81. Washington, DC: American Psychological Association.
- Ratelle, C. F., F. Guay, R. J. Vallerand, S. Larose, and C. Senécal. 2007. "Autonomous, Controlled, and Amotivated Types Of Academic Motivation: A Person-Oriented Analysis." *Journal of Educational Psychology*, 99(4): 734-746
- Sampasivam, S., and R. Clément. 2014. "The Dynamics of Second Language Confidence: Contact and Interaction." In *Multiple Perspectives on the Self in SLA*, edited by S. Mercer and M. Williams, 23–40. Bristol, UK: Multilingual Matters.
- Thorsen, C., A. Henry, and C. Cliffordson. 2017. "The case of a missing person? The current L2 self and the L2 Motivational Self System." *International Journal of Bilingual Education and Bilingualism*.
- Wang, L., and A. Kirkpatrick. 2013. "Trilingual Education in Hong Kong Primary Schools: A Case Study." *International Journal of Bilingual Education and Bilingualism*, 16(1): 100–116.
- Ward, C., and A. Kennedy. 1994. "Acculturation Strategies, Psychological Adjustment, and Sociocultural Competence during Cross-Cultural Transitions." *International Journal of Intercultural Relations* 18 (3): 329–43.
- Wilson, J., C. Ward, and R. Fischer. 2013. "Beyond Culture Learning Theory: What Can Personality Tell Us About Cultural Competence?" *Journal of Cross-Cultural Psychology*, 44(6): 900-927.

- Yan, X., and A. Moody. 2010. "Language and Society in Macao: A Review of Sociolinguistic Studies on Macao in the Past Three Decades." *Chinese Language and Discourse* 1(2): 293–324.
- Yashima, T. 2002. "Willingness to Communicate In a Second Language: The Japanese EFL Context." *The Modern Language Journal*, 86(1): 54-66.
- Young, M. Y. C. 2009. "Multilingual Education in Macao." *International Journal of Multilingualism* 6(4): 412–425.

Table 1. Correlations, Means, and Standard Deviations (SDs) among Variables.

	Mean	SD	1	2	3	4	5	6
1. Chinese cultural internalization	4.23	0.82	--					
2. Western cultural internalization	4.50	0.67	.04	--				
3. Amotivation	2.42	1.22	-.02	-.17 [*]	--			
4. Controlled motivation	4.57	0.92	.04	.07	-.04	--		
5. Autonomous motivation	4.72	0.95	.10	.25 ^{***}	-.44 ^{***}	.32 ^{***}	--	
6. English learning attitudes	4.85	1.03	.08	.24 ^{**}	-.67 ^{***}	.06	.70 ^{***}	--
7. English use confidence	3.93	1.03	.12	.27 ^{***}	-.33 ^{***}	-.11	.47 ^{***}	.60 ^{***}

Note. ^{*} $p < .05$. ^{**} $p < .01$. ^{***} $p < .001$.

Table 2. Multiple Regression Results for Estimated Coefficients of the Moderation analyses.

Outcome Variable	Predictor	<i>b</i>	<i>SE</i>	<i>t</i>
Amotivation	Chinese cultural internalization	-0.03	0.11	-0.26
	Western cultural internalization	-0.31	0.14	-2.26*
	Chinese × Western cultural internalizations	0.15	0.19	1.08
	Model summary	$R^2 = .04$	$F(3,168) = 2.03$	
Controlled motivation	Chinese cultural internalization	0.02	0.08	0.29
	Western cultural internalization	0.09	0.10	0.86
	Chinese × Western cultural internalizations	0.18	0.10	1.85
	Model summary	$R^2 = .03$	$F(3,168) = 1.54$	
Autonomous motivation	Chinese cultural internalization	0.12	0.09	1.29
	Western cultural internalization	0.36	0.10	3.39***
	Chinese × Western cultural internalizations	-0.09	0.10	-0.92
	Model summary	$R^2 = .08$	$F(3,168) = 4.56^{**}$	
English learning attitudes	Chinese cultural internalization	0.12	0.09	1.26
	Western cultural internalization	0.39	0.12	3.30***
	Chinese × Western cultural internalizations	-0.29	0.11	-2.71**
	Model summary	$R^2 = .10$	$F(3,168) = 6.19^{***}$	
English use confidence	Chinese cultural internalization	0.17	0.09	1.92
	Western cultural internalization	0.43	0.11	3.90***
	Chinese × Western cultural internalizations	-0.34	0.10	-3.33**
	Model summary	$R^2 = .14$	$F(3,168) = 9.32^{***}$	

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3. Bootstrapping Results for Test of Conditional Indirect Effects (i.e., Chinese Cultural Internalization on English Confidence via English attitudes) at the mean, above 1SD of the mean, and below 1SD of the mean of the moderator (i.e., Western Cultural Internalization).

Outcome variable	Predictor	Mediator	Level of Western culture internalization	Conditional indirect effect	<i>S.E.</i>	95% CI	
						Lower	Upper
English use confidence	Chinese culture internalization	English learning attitudes	-1SD	.15*	.06	.035	.311
			Mean	.05	.04	-.032	.147
			+1SD	-.05	.05	-.169	.049

Figure 1. The hypothesized model in which Western and Chinese cultural internalizations interactively influence English use confidence through the mediation of English learning attitudes and autonomous motivation.

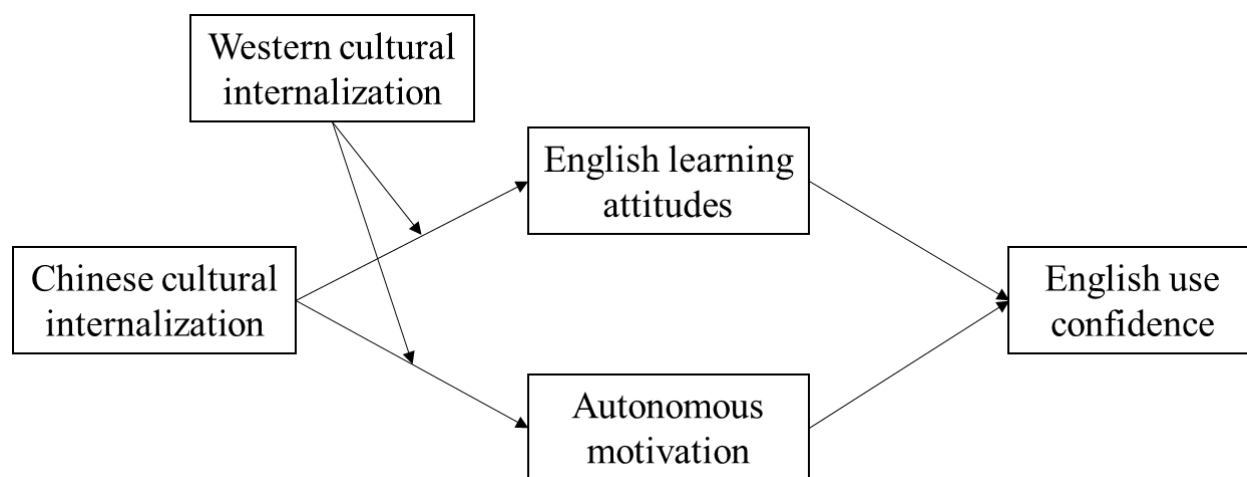


Figure 2. Interaction effect of Western cultural internalization and Chinese cultural internalization on English attitudes (plotted at 1 SD above and below the means of Chinese and Western cultural internalizations).

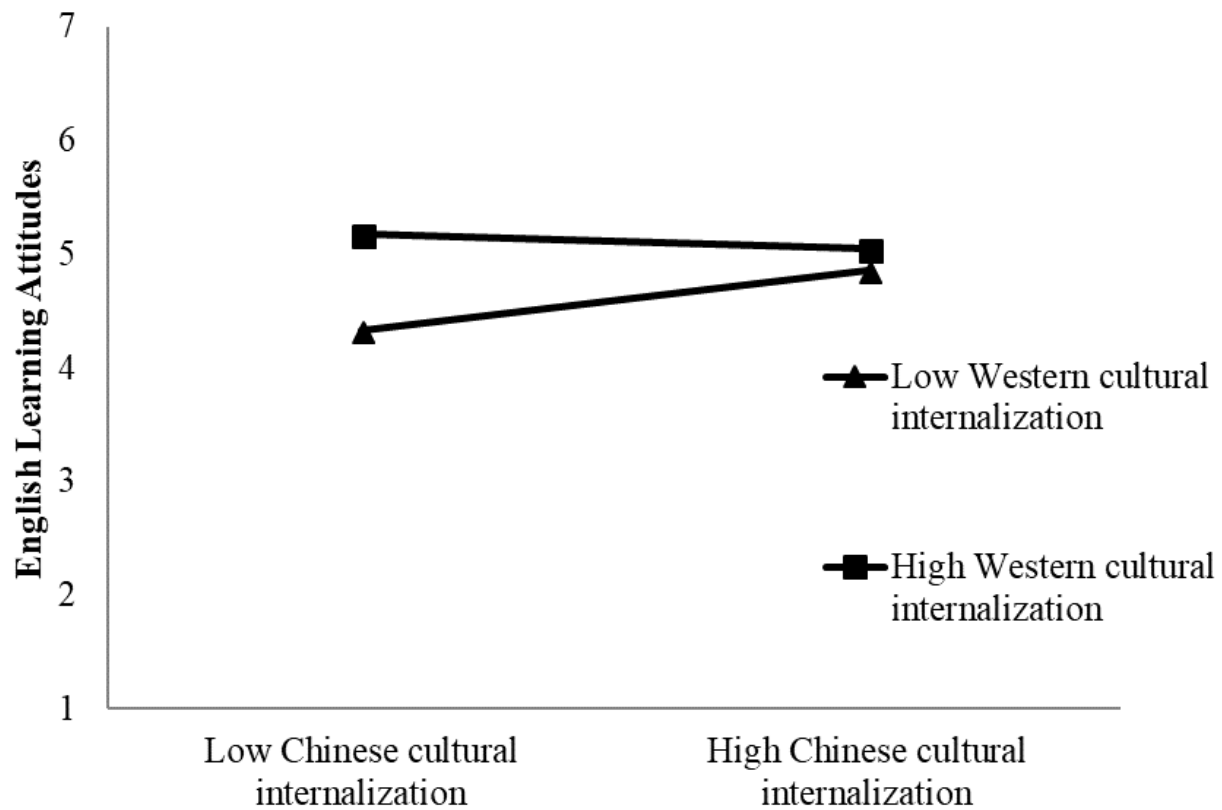


Figure 3. Interaction effect of Western cultural internalization and Chinese cultural internalization on English confidence (plotted at 1 SD above and below the means of Chinese and Western cultural internalizations).

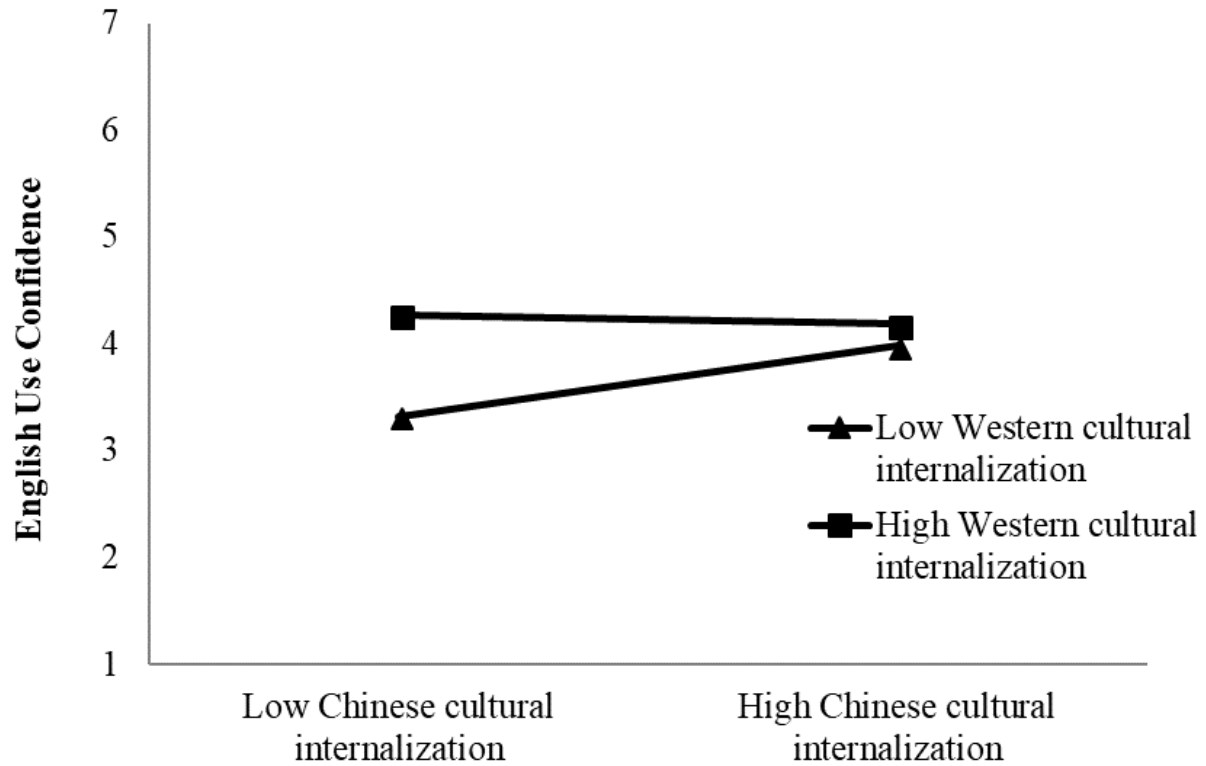
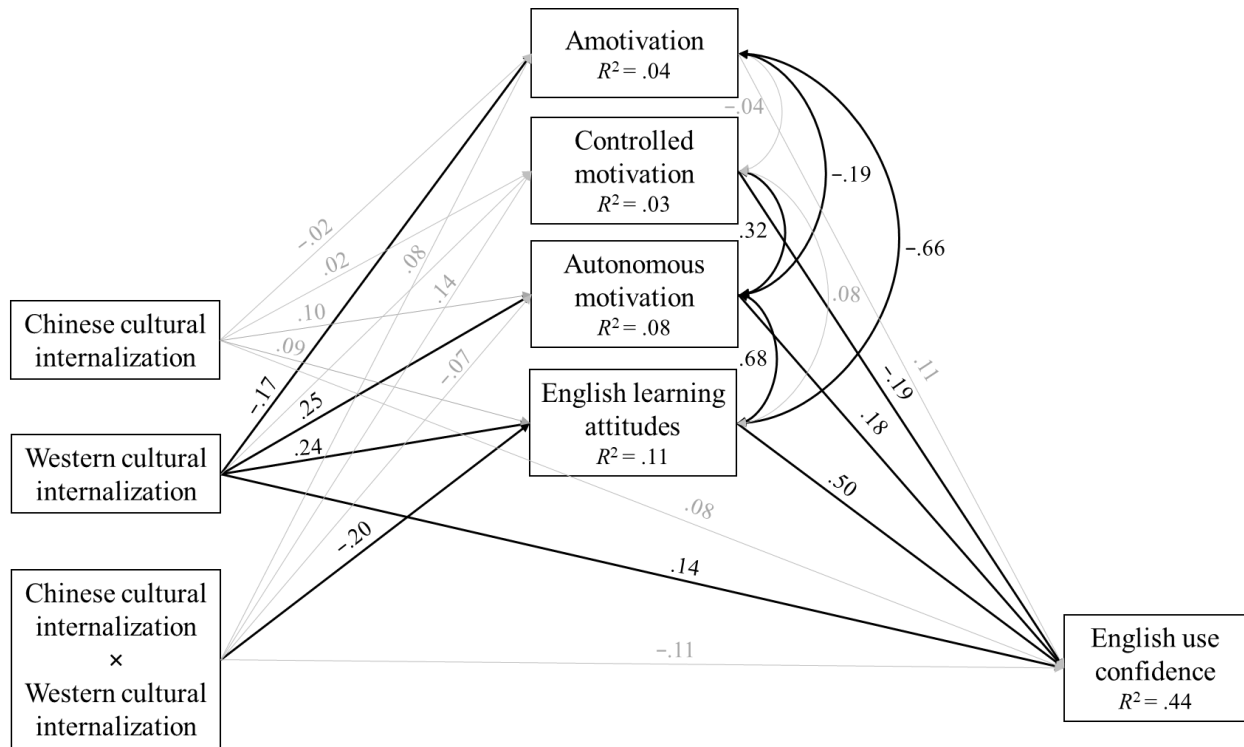


Figure 4. Results of the hypothesized path model. The dark solid lines represent the statistically significant paths ($p < .05$). The grey dash lines represent non-significant paths. Standardized path coefficients are presented.



Appendix 1. Cultural Internalization
(adapted from Ward & Kennedy, 1994)

你對以下各方面的中國文化有多認同 (To what extent do you identify with the following aspects of Chinese culture ?)		一點也不認同 (not at all)							完全認同 (completely)	
1	Clothing (衣著服飾)	1	2	3	4	5	6	7		
2	Pace of life (生活節奏)	1	2	3	4	5	6	7		
3	Food (飲食)	1	2	3	4	5	6	7		
4	Religious beliefs (宗教信仰)	1	2	3	4	5	6	7		
5	Material comfort (物質享受)	1	2	3	4	5	6	7		
6	Recreational activities (休閒娛樂)	1	2	3	4	5	6	7		
7	Family life (家庭生活)	1	2	3	4	5	6	7		
8	Accommodation/residence (居住環境)	1	2	3	4	5	6	7		
9	Values (價值觀)	1	2	3	4	5	6	7		
10	Friendships (友誼)	1	2	3	4	5	6	7		
11	Communication styles (交流方式)	1	2	3	4	5	6	7		
12	Cultural activities (文化活動)	1	2	3	4	5	6	7		
13	Language (語言)	1	2	3	4	5	6	7		
14	School activities (學校活動)	1	2	3	4	5	6	7		
15	Consuming attitudes (消費觀念)	1	2	3	4	5	6	7		
你對以下各方面的西方文化有多認同 (To what extent do you identify with the following aspects of Western culture ?)		一點也不認同 not at all							完全認同 completely	
1	Clothing (衣著服飾)	1	2	3	4	5	6	7		
2	Pace of life (生活節奏)	1	2	3	4	5	6	7		
3	Food (飲食)	1	2	3	4	5	6	7		
4	Religious beliefs (宗教信仰)	1	2	3	4	5	6	7		
5	Material comfort (物質享受)	1	2	3	4	5	6	7		
6	Recreational activities (休閒娛樂)	1	2	3	4	5	6	7		
7	Family life (家庭生活)	1	2	3	4	5	6	7		
8	Accommodation/residence (居住環境)	1	2	3	4	5	6	7		
9	Values (價值觀)	1	2	3	4	5	6	7		
10	Friendships (友誼)	1	2	3	4	5	6	7		
11	Communication styles (交流方式)	1	2	3	4	5	6	7		
12	Cultural activities (文化活動)	1	2	3	4	5	6	7		
13	Language (語言)	1	2	3	4	5	6	7		
14	School activities (學校活動)	1	2	3	4	5	6	7		
15	Consuming attitudes (消費觀念)	1	2	3	4	5	6	7		

Note. We adapted and translated the Acculturation Index (AI; Ward and Kennedy, 1994) into Traditional Chinese for the purpose of this study.

1. Because I choose to be the kind of person who can speak more than one language. 我學英文是因為我想成為會說多於一種語言的人。

2. Because I think it is good for my personal development. 我學英文是因為我認為學英文對我個人的發展有幫助。
3. Because I choose to be the kind of person who can speak a second language. 我學英文是因為我認定自己至少得懂一門外語。

Intrinsic Motivation -- Knowledge

1. For the pleasure that I experience in knowing more about the literature of the second language group. 我學英文是因為通過學英文我能瞭解更多的關於英文文學和文化，帶給我樂趣。
2. For the satisfied feeling I get in finding out new things. 因為在學習英語的過程中能瞭解到很多新的事物，很有滿足感。
3. Because I enjoy the feeling of acquiring knowledge about the second language community and their way of life. 我學英文是因為如果我懂英文的話，我可以了解以英文為母語的人的文化和他們的生活方式。

Intrinsic Motivation

1. For the pleasure I experience when surpassing myself in my second language studies. 我學英文是因為我可以享受到學英文時超越自己的快樂。
2. For the enjoyment I experience when I grasp a difficult construct in the second language. 我學英文是因為當我多了解一些較難的英文語法句型後，會很有成就感。
3. For the satisfaction I feel when I am in the process of accomplishing difficult exercises in the second language. 我學英文是因為當我能完成有難度的英文練習時，我覺得很有成就感。
4. For the "high" I feel when hearing foreign languages spoken. 我學英文是因為當我聽到有人講英文時，我會感到很興奮。
5. For the "high" feeling that I experience while speaking in the second language. 我學英文是因為講英文讓我覺得很酷。
6. For the pleasure I get from hearing the second language spoken by native second language speakers. 我學英文是因為因為聽到英語國家的人講地道的英語時，我會很享受。

Appendix 3. Attitudes toward learning English (Gardner, Tremblay, and Masgoret 1997)

Positive items

1. English is really great. 英文是很棒的一門語言.
2. I really enjoy learning English. 我真的很享受學習英文.
3. I love learning English. 我熱愛學習英文.
4. I plan to learn as much English as possible. 我覺得英文學得越多越好.

Negatively items

1. I hate English. 我討厭英文
2. I would rather spend my time on other courses rather than learning English. 我寧願把時間用在其他課程上也不上學英語.
3. I find the study of English very boring. 我覺得學英文很無聊
4. Learning English is a waste of time. 學習英文是浪費時間的.

English use confidence (Gardner, Tremblay, and Masgoret 1997)

1. I may not be completely fluent in English, but I feel confident speaking it.
我可能說不出流利的英文,但說英語時我很自信.
2. Despite the fact that I may not be completely proficient in English, I am self-assured conducting myself in English
儘管我可能不完全掌握好英文,但我用英語時很自信.
3. When the English language is spoken to me, I feel I can understand practically everything
如果別人對我說英文,我覺得我能夠明白他/她所說的幾乎所有內容.
4. I'm sure I could speak French well in almost any circumstances.
我有信心在大部份情況下我都能夠把英文說好
5. Even when I make mistakes speaking English, I still feel sure of myself while trying to communicate.
雖然有時候說英文會犯錯誤,但我用英文交流的時我仍相信自己.
6. I am confident when having conversations with English-speaking people despite any errors I may make
當用英文與人交流時,儘管犯錯,但我仍覺得自信.
7. Regardless of how much English I know, I feel confident about using it.
不管我懂得多少英文,但用起來我會覺得自信.
8. When the French language is spoken to me, I feel I can understand
無論何時何地用英文來寫作來表達自己,我都會覺得很適應.
9. I feel confident using English regardless of my ability.
不管我的能力如何,我有信心去用英文.
10. I believe that I can competently read and understand most books and articles written in French.
我相信我有能力閱讀大部分的英文書籍和文章.