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Western and heritage cultural internalizations predict EFL students’ language motivation and confidence

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ABSTRACT
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 are 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 learners, 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 embrace 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.

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 culture have more positive attitudes towards learning English, and are more motivated to learn and confident to use English (e.g. Chen, Benet-Martínez, and Bond 2008; Peng and Woodrow 2010; Lai 2011; Ng and Lai 2011; Awwad, Stapa, and Maasum 2015). In other words, through internalization, that is, the process through which culture becomes part of the self, EFL students will become more motivated to learn and confident to use English (Noels 2009).

Although it is clear that internalizing Western cultural values and practices are linked to English motivation and confidence (e.g. Peng and Woodrow 2010; Lai 2011; Awwad, Stapa, and Maasum 2015), 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 foreign languages (Hong et al. 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, autonomous 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 a positive 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 MacIntyre et al. 1998; Sampasivam and Clément 2014). Research on EFL learning also shows that learners with a high level of confidence in their English ability were also more willing to use English, which enabled them to achieve success in English (Yashima 2002; Peng and Woodrow 2010; Öz, Demirezen, and Pourfeiz 2015).

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 (MacIntyre 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 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 using the language (Yashima 2002; Gao et al. 2007; Öz, Demirezen, and Pourfeiz 2015).

In addition to attitudes towards 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 et al. 2000; Pae 2008). 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 et al. 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 et al. 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 et al. 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 motivation 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 explains 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, their imagined contact and remote, mediated contact can explain identification processes underpin their learning motivation (Gao et al. 2007; Dörnyei 2009).

However, one’s internalization of the heritage culture could also play an important role in their language learning, depending on how one negotiates the two cultures (Lambert 1967; Clément 1980; Doucerain 2017). For example, some learners 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 society’s culture (Ward and Kennedy 1994; Chirkov et al. 2003). For people who live in a society that is exposed to Western culture due to globalization, they may constantly and seamlessly negotiate their bicultural identity when interacting with different cultural practices (Hong et al. 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 has been mainly conducted in the immigration contexts (Berry 2008), it has implications for understanding how the internalization of 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 the 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 et al. 2017). Both models agree that acculturation to the Western-led global 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, Benet-Martínez, and Bond 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; Hong et al. 2013; Fu, Morris, and Hong 2015). Given that learning English is a key to adapting to the Western-based globalized culture, we argue that a strong sense of connection with the home culture may help EFL learners to sustain their positive attitudes towards learning English and their autonomous motivation to learn other cultures and languages. 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 was 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 the home culture did not manifest among those who feel secure about the Western culture because they were 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 people who do not internalize Western culture, internalizing the 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. In contrast, for those who have internalized Western culture, they are already open to Western culture and their English motivation is presumably high, and therefore internalizing the home culture may not necessarily improve their English motivation. In summary, internalization of the heritage culture improve English motivation only among those who internalize Western culture to a lesser extent.

**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 culture and the heritage culture were interactively associated with their English attitudes, autonomous motivation, and English use confidence (see Figure 1).

Specifically, we made four predictions. First, we predicted that Western cultural internalization would be positively linked to English attitudes, autonomous motivation, and English confidence (**hypothesis 1**). Second, in accordance with findings regarding globalization-based acculturation (Chen, Benet-Martínez, and Bond 2008; Ng and Lai 2011), and remote acculturation (Ferguson et al. 2017) we hypothesized that Western cultural internalization would moderate the link of Chinese cultural internalization on English attitudes, autonomous motivation, and English confidence. Specifically, according to the cultural attachment theory (Fu, Morris, and Hong 2015), we expected that for learners who have little internalization of Western culture, maintaining a strong internalization of the 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 English confidence (Yashima 2002; Peng and Woodrow 2010; Awwad, Stapa, and Maasum 2015; Noels et al. 2016), we predicted that language attitudes and autonomous 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 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 socio-linguistic 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. 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 Macau, who are largely exposed to heritage Chinese culture and Western culture, provides an ideal context 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. All are available on the IRIS data base (http://www.iris-database.org). 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 means were calculated. Cronbach’s alphas (αs) are presented in brackets.

**Cultural internalizations**
Adapting Ward and Kennedy’s (1994) Acculturation Index (AI; see supplemental material), 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 (α = .88) or Western cultural internalization (α = .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 (α = .89).

**Motivational orientations**
The Chinese version of the Language Learning Orientations Scale (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’; α = .77), external regulation (2 items; e.g. ‘In order to have a better salary later on’; α = .753), introjected regulation (3 items; e.g. ‘Because I would feel guilty if I didn’t know a second language’; α = .514), identified regulation (3 items; e.g. ‘Because I think it is good for my personal development’; α = .71), and intrinsic motivation (9 items; e.g. ‘For the satisfied feeling I get in finding out new things’; α = .88). As suggested by previous research, autonomous motivation was calculated as the mean of intrinsic orientation items and identified orientation items (α = .64), whereas controlled motivation was calculated as the mean of external and introjected regulation items (α = .89), and both of these subscales contrasted with amotivation (α = .77; Ratelle et al. 2007; Guay et al. 2013).

**English use confidence**
The Chinese-translated language confidence scale measured participants’ English confidence (10 items; Clément and Kruidenier 1985; see also 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 confidence using English (α = .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 are independent. In addition, we found that Chinese cultural internalization did not predict language attitudes, motivation orientations, and English use confidence.

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 learning 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 predict English attitudes, 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 confidence. We found that the interaction between Chinese and Western cultural internalizations significantly predicted English learning attitudes (see Figure 2) and English 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; \( b = −.08, \ SE = .06, t = −.70, p = .48 \) for English confidence). That is, consistent with hypothesis 2, Chinese cultural internalization predicts English attitudes and confidence only for learners who have little internalization of Western culture.

| 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                       | \( b \) | \( SE \) | \( t \) |
| Amotivation               | Chinese cultural internalization | −.03 | .11 | −.26 |
|                          | Western cultural internalization | −.31 | .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 | .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 | −.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 | −.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 | −.34 | 0.10 | −3.33** |
|                          | Model summary                    | \( R^2 = .14 \) | \( F(3,168) = 9.32*** \) |

Note. *\( p < .05 \). **\( p < .01 \). ***\( p < .001 \).
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.

**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 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). 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

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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 use confidence (plotted at 1 SD above and below the means of Chinese and Western cultural internalizations).
of the indirect effects of multiple mediators. A 95% CI does not contain 0 indicates a significant effect ($p < .05$).

We first examined whether English learning attitudes and autonomous motivation 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 significantly 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 cultural 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 ($b = −.14$, $SE = .07$, 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

![Figure 4](image-url) 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.

### Table 3. Bootstrapping Results for Test of Conditional Indirect Effects (i.e. Chinese Cultural Internalization on English Use 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).

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Predictor</th>
<th>Mediator</th>
<th>Level of Western culture internalization</th>
<th>Conditional indirect effect</th>
<th>$SE$</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>English use confidence</td>
<td>Chinese culture internalization</td>
<td>English learning attitudes</td>
<td>−1SD</td>
<td>.15*</td>
<td>.06</td>
<td>.035</td>
<td>.311</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean</td>
<td>.05</td>
<td>.04</td>
<td>−.032</td>
<td>.147</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+1SD</td>
<td>−.05</td>
<td>.05</td>
<td>−.169</td>
<td>.049</td>
</tr>
</tbody>
</table>
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.

**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 amotivated, and were more confident using 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 the 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 2009; 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 in using the target language (Peng and Woodrow 2010).

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 moderated the link between Chinese cultural internalization and English attitudes, and attitudes in turn predicted language confidence. For learners who felt disconnected from Western culture, internalizing the home culture could provide them with a sense of meaning and psychological security that increased their openness to learn foreign cultures, reflecting on their positive attitudes about learning English and confidence about using English (cf. Fu, Morris, and Hong 2015). On the other hand, for those who had already internalized Western culture, internalizing the home culture did not necessarily make them feel more positive or confident because those who were connected with the Western culture already had a strong positive attitude about learning 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 (Bray 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 towards learning English and in turn their confidence using 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; Nault 2006; Crowther and De Costa 2017). 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 English.

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 (Wang and Kirkpatrick 2013; Crowther and De Costa 2017). 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 (Phinney 2003; Sampasivam and Clément 2014). 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 on the relations between how people build and negotiate their cultural identity, on the
one hand, and how the 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 devel-
opment 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 open and extraverted may be more likely to explore, learn and eventually internalize other cul-
tures and languages (e.g. Wilson, Ward, and Fischer 2013), and be more confident using English
(Ożańska-Ponikwia and Dewaele 2012). People’s cultural internalization may also shape their mind-
sets 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 con-
texts, 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 accul-
turation 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 polycultur-
alist, 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 integrative-
ness 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 research-
ers 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’ orien-
tations 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 learn-
ing 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 intern-
alization may help those learners to feel positive and confident about exploring 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.

Notes

1. Western culture is typically considered to be the beliefs, values, and practices of 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).

2. Although Portuguese plays an important role in the legal system in Macao, only 0.6% of the residents speak 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.

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, which had a moderately better Cronbach's alpha index ($\alpha = .64$).

5. We found a gender difference on language attitude ($F = 5.00$, $p = .03$, $\eta^2_p = .03$), 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 interpretation of the results.

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).

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