

Application of Berry's Model of Acculturation to the Study of Acculturation Profiles and Adaptation of Filipino Immigrants in Macau

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This study, based on Berry's bidimensional acculturation model, aims to assess the acculturation profiles with a sample of 214 Filipino immigrant participants using a person-centered approach and to examine the relationship between profiles and psychological and sociocultural adaptation. Cluster analysis, based on acculturation process related variables including acculturation orientations, cultural identity and social contact, identified three-cluster optimal classification profiles namely separation with low ethnic contact (43%), integration with high mainstream orientation (42%), and marginalization (15%). This result indicated that participants belonging to the integration with high mainstream orientation profile showed a more positive psychological and sociocultural adaptation; in contrast, the marginalization profile had relatively weaker adaptation outcomes. It is found that there were no significant differences between separation with low ethnic contact and integration with high mainstream orientation profile with respect to psychological adaptation. Study findings provided considerable evidence over the context of settlement for immigrants' acculturation status while the adaptation outcome was dependent on their acculturation profiles. Implications of these findings for social policies and limitations for practitioners in this field are discussed.

Keywords: *Acculturation Profile, Cluster Analysis, Macau's Filipino Immigrants, Psychological Adaptation, Sociocultural Adaptation*

Extended Abstract

Our understanding of immigrants' intercultural experience is mainly based on Berry's acculturation model (Capielo et al., 2019; Yoon et al., 2020). However, this model is derived from Latinos or Asian immigrants in classic Western settlements and contained discrepancies between the immigrants' original culture and host culture (Rosenthal et al., 2013). Meanwhile, Rudmin (2009), Yoon and colleagues (2020) suggested that acculturation orientation and adaptation of immigrants are worthy of in-depth exploration for the original culture of immigrants being similar to the culture of society of settlement, thus, calling for a shift of research focus from classic Western settlement societies to other immigrant settlement societies (Chirkov, 2009; Rudmin et al., 2017).

Immigration studies need sufficient samples to meet the comparative principle (Berry, Phinney et al., 2006a). Macau is an immigrant society with the Chinese as the dominating ethnicity (Shaw, 2011). Studies showed that mainland Chinese immigrants tended to integrate (Guan & Sandle, 2015) while little attention had been paid on ethnic minorities acculturation in Macau. According to census data, the Filipino ethnic group is the largest minority group in Macau, with high visibility and significant growth in number in recent years (Macau Statistics and Census Bureau, 2017). In view of this, taking Macau-Filipino immigrants samples, the current study aims at the following: 1) to determine samples' acculturation profile; 2) to examine the relationship

between acculturation profiles and adaptation outcomes. This extends to the exploration on the applicability of Berry's acculturation model in Macau, which has an East Asian collectivist cultural context (Allison & Emmers-Sommer, 2011); subsequently provides evidence and direction to enrich the understanding of the complex acculturation phenomena and culture interaction relationship (Komisarof & Leong, 2016).

According to Berry's theory (Berry, 1997, 2005), there are two independent orientations in the context of cultural interaction on individual level: cultural maintenance and cultural contact/participation. With various degree of two orientations cross, four acculturation strategies are formulated: integration, assimilation, separation and marginalization (Sam & Berry, 2010). Past studies showed that the relationship between cultural maintenance and cultural contact was still unclear (Sun et al., 2016) and inconsistency was found on how the two orientations correlate (Le & Raposa, 2019; Miller et al., 2011). Some researchers criticized fourfold acculturation strategy, pointing out that the proposed acculturation strategies are variable-centered and may introduce challenges in terms of validity (Rudmin, 2009; Schwartz et al., 2010). To address the research gap, some researchers proposed to replace the variable-centered approach with the person-centered approach (Berry et al., 2006b; Ward & Geeraert, 2016) and the potential downside may be the inability to determine fourfold acculturation strategy among given samples whereas certain profiles may expand to multiple subgroups (Inguglia & Musso, 2015; Schwartz et al., 2010).

Acculturation research also focus to examines the results of immigrants' cultural adaptation (Schwartz & Zamboanga, 2008). Adaptation refers to psychological adaptation and sociocultural adaptation (Ward, 2001). According to Berry's integration hypothesis, an individual's active involvement in two cultures can promote favorable adaptation outcomes (Berry, 2013) whereas integration may cause individuals to bear dual pressures from both ethnic culture and the mainstream culture (Rudmin, 2003). Past findings (Choi et al., 2018; Vedder et al., 2006a; Vedder et al., 2007) indicate that, to a certain extent, integration may not necessarily constitute

better psychological adaptation.

Taking into account the exploratory nature of this research, and seeking alignment with Berry's model, it is expected to identify four acculturation profiles: integration, assimilation, separation, and marginalization (H1a), being integration the most common acculturation profile of Macau's Filipino immigrants (H1b). Also, based on Berry's integration hypothesis (Berry, 2013), we assume that the integration profile tends to favor Filipino immigrants with better psychological and sociocultural adaptation while marginalization tends to face greater difficulties in adaptation outcomes (H2a); In terms of psychological adaptation, integration may not possess significant advantage (H2b).

Method

We adopt snowball sampling, a total of 214 Filipino immigrants participated aged from 16 to 64 ($M = 28.32$, $SD = 10.91$). There are 129 females (60.28%) aged from 16 to 64 ($M = 28.32$; $SD = 10.91$), mostly under 35 (76.2%). Overall, 63 participants (29.43%) were born in Macau with the lengthiest residency in Macau of 32 years while the shortest is less than 1 year ($M = 12.3$; $SD = 8.36$). The average time of living in Macau for non-Macau born samples is 8.5 years. 67.3% participants reported their daily language spoken is English, only 3.3% using Chinese. The questionnaire is written in English and all participants received a Mop\$10 voucher.

Berry and colleagues (2006b) suggested that the analysis of acculturation profiles should incorporate attitude, identity and behavioral variables to comprehensively examine the differences of individual acculturation. In this regard, the variables used in the cluster analysis in this study included acculturation orientations (Berry & Hou, 2016, 2017, 2019), cultural identity (Berry et al., 2006b), and social contact (Berry et al., 2006b). Psychological adaptation was assessed via 3 scales: life satisfaction (Diener et al., 1985), self-esteem (Self-esteem; Rosenberg, 1965), psychological problems (Berry, Westin et al., 2006b). We conducted exploratory factor analyses of the three scales constituted a single factor (eigenvalue = 1.807, 60.237% explained

variance). Respondents' demographic characteristics were also asked. Sociocultural adaptation was assessed using Revised Sociocultural Adaptation Scale (Wilson, 2013).

To determine samples' acculturation profiles comprises of two main steps (Borgen & Barnett, 1987; Musso et al., 2015). First, clusters number determination was carried out through an agglomerative hierarchical cluster analysis using the Ward's method. Then, *K*-means cluster analysis is used to group the samples. In addition, we performed a one-way MANOVA to examine the relationship between acculturation and adaptation.

Results

According to Pearson's correlation, ethnic orientation and Macau orientation were positively correlated, $r = .387$, $p = .000$. Ethnic identity was positively correlated with Macau identity, $r = .204$, $p = .003$. Ethnic contact was positively correlated with Macau contact, $r = .446$, $p = .000$. Based on clustering analysis, a 3-cluster solution best represented the samples since the cluster profiles were most interpretable with all ANOVAs were significant shown in Table 1. Participants belonging to the separation with low ethnic contact (SLEC) profile scored significantly above the sample mean on ethnic orientation and ethnic identity, but slightly below the sample mean in ethnic contact. Participants exhibit Macau orientation, Macau identity and Macau contact

scores below the sample mean. For integration with high mainstream orientation (IHMO) profile, participants in this cluster scored significantly above the sample mean on the ethnic and Macau orientation, ethnic and Macau identity, ethnic and Macau contact, but high level on the Macau-related variables. Participants who belonged to the Marginalization (MARG) cluster reported low level in all six acculturation experience variables (Fig.1).

We then performed one-way MANOVA to examine differences in adaptation outcomes associated to acculturation profiles among samples. A significant multivariate effect existed, Wilks' Lambda = 0.811, $F(2, 211) = 11.618$, $p < 0.001$, partial $\eta^2 = 0.100$. Results are displayed in Table 2. Filipino immigrants belonging to IHMO profile showed higher levels of adaptation outcomes in both psychological and sociocultural aspect, MARG profile in contact, and no significant difference in psychological adaptation for the SLEC profile and the IHMO profile. In terms of sociocultural adaptation, the IHMO profile is significantly higher than the other two acculturation profiles (② > ① > ③).

Discussion

This study identified three acculturation profiles rather than the fourfold patterns described by Berry. This indicates that individual acculturation is affected by the settled society background (Vedder et al., 2006a; Yoon et

Table 1
Cluster profile variable means, standard deviations and ANOVA

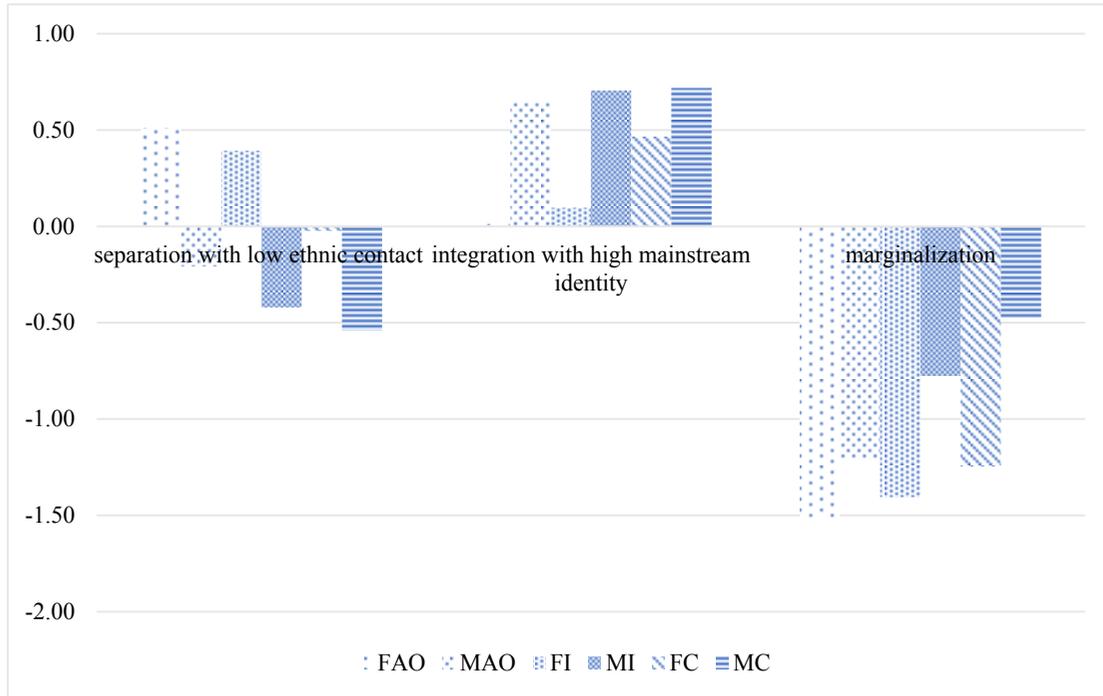
Variable	Profile 1 <i>n</i> = 92 <i>M</i> (<i>SD</i>)	Profile 2 <i>n</i> = 90 <i>M</i> (<i>SD</i>)	Profile 3 <i>n</i> = 32 <i>M</i> (<i>SD</i>)	<i>F</i> (2,211)	η^2
Ethnic orientation	4.53 (0.56)	3.92 (0.92)	2.25 (0.98)	88.579***	0.456
Macau orientation	3.34 (0.95)	4.29 (0.62)	2.22 (1.13)	74.105***	0.413
Ethnic identity	4.65 (0.43)	4.41 (0.71)	3.22 (0.86)	61.412***	0.368
Macau identity	3.36 (0.77)	4.44 (0.59)	3.02 (1.10)	63.852***	0.377
Ethnic contact	4.00 (0.69)	4.45 (0.57)	2.87 (1.29)	50.843***	0.325
Macau contact	2.48 (0.89)	3.80 (0.76)	2.55 (0.82)	64.068***	0.379

Note. Profile 1 = SLEC, Profile 2 = IHMO, Profile 3 = MARG.

*** $p < .001$.

Figure 1

Acculturation profiles, showing standardized scores on 6 acculturation experiences variables



Note. FAO = Ethnic orientation, MAO = Macau orientation, FI = Ethnic Identity, MI = Macau Identity, FC = Ethnic contact, MC = Macau contact.

Table 2

Means, standard deviations of participants' adaptation variables

Variable	Acculturation profiles						F (2,211)	η^2
	Profile 1-SLEC		Profile 2-IHMO		Profile 3-MARG			
	M	SD	M	SD	M	SD		
Psychological adaptation	1.81	.43	1.82	.44	1.48	.35	8.324***	0.073
Sociocultural adaptation	3.24	.51	3.61	.58	2.96	.62	18.166***	0.147

***p < .001.

al., 2020).

First of all, the SLEC is comparatively most frequently occurring profile, which is different from the preference of assimilation of US-Filipino immigrants demonstrated (Choi et al., 2018). Sam and Berry (2010) stated that the preference for separation or assimilation depended on the individuals' ethnicity and sociocultural context of the settlement. However, for Macau, despite having been influenced by Portuguese culture for more

than 400 years, Chinese culture is deeply rooted in Macau as the mainstream culture with collectivist values in essence (Chan, 2018). Moreover, the Macau Chinese and other ethnic groups are confined to informal boundaries and integration of the Chinese and Westerners is rather a functional operation to enable social governance (Amaro, 2015). Thus, ethnic groups in Macau are actually in socially separate status (Hao, 2005), which will affect immigrants' preference for their own ethnic culture and

demonstrate a higher tendency to separation.

In this study, SLEC (43%) individuals interacted slightly less with their own ethnic groups than the overall sample average where previous studies have seldom highlighted such findings. Studies founded that the domains involved in acculturation do not change at the same rate or direction (Schwartz et al., 2010). Cultural identity and behavioral practices experienced different degree of changes in the process of individual acculturation (Schwartz et al., 2014; Ward & Kus, 2012; Yoon et al., 2020).

The second preference of the sample is IHMO (42%). They preferred Macau culture, which is in line with Berry's (1997) view that integration means the weakening of the original ethnic culture. Practically speaking, the historical background and Macau's blooming economy since 2002 may strengthen and contribute to immigrants' growing sense of belonging to the mainstream society (Grigoryev & van de Vijver, 2017).

Fifteen percent (15%) of the sample demonstrated MARG which was rarely found in previous researches (Ward & Geeraert, 2016). Obviously, after the return of sovereignty, especially non-Chinese immigrants feel more from the ambiguity of immigrants' self-identity, which may be full of contradictions between spiritual and emotional belonging and ethnic affiliation, which leads to this part of immigrants' problems with cultural maintenance and contact have appeared as marginalized (Phinney et al., 2006).

Individuals with IHMO profile have better adaptation outcomes which is basically consistent with Berry's theory and previous research findings. The adaptation of marginalized immigrants are worse than the other two profiles. This study reflects that this type of immigrants may be excluded or discriminated by mainstream and ethnic societies, leading to the lack of development of positive orientations for both cultures (Berry, 1997; Sam & Berry, 2010). Also, there was no statistically significant difference in the scores of psychological adaptation between the SLEC ($M = 1.81$, $SD = 0.42$) and the IHMO ($M = 1.82$, $SD = 0.44$). In other words, the psychological adaptation of SLEC immigrants may not be worse than

IHMO resembling existing findings (Berry et al., 2006b). However, there are some differences with others research findings (Falavarjani et al., 2020; Rudmin, 2003). The enhancement of ethnic culture may become a protective factor for positive well-being (Smith & Sliva, 2011; Yoon et al., 2013).

Implications and Limitations

This immigration research expands into the horizon on studying immigrants living in East Asia in comparison to the conventional studies on immigrants coming from East Asia conducted in a hosting country having significant cultural differences. The findings of this research have brought certain inspirations for reflection on the paradigm of acculturation, especially on examining the process of acculturation, rather than merely emphasizing on individuals' adaptation outcomes in the new society (Chirkov, 2009).

Berry's integration hypothesis, supported by this study, serves as a guidance and enlightenment for Macau's public policy making. In general, public policies should be designed to provide appropriate services and support to meet the needs of the immigrants having different needs. One-size-fitting all policy or uniformity should be avoided. Policies should encourage immigrants to maintain and inherit ethnic culture and at the same time be convinced and assisted to establish their relationship with the mainstream society turning Macau into a truly multicultural society.

Besides, this finding should be interpreted in some limitations. Acculturation orientations assessment in this study is only a short version. Future research can combine multi-item acculturation orientations scale for assessment. It is hoped that in the future, the mechanism of personality, discrimination, social support and other factors on the experience of acculturation of immigrants can be explored. Future research can be conducted with longitudinal design and combined qualitative methods to make deeper explorations into immigration cultural interaction in Macau.