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One country two systems: a comparative study of national identity between Hong Kong and Macau

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ABSTRACT
Drawing from dual attachment theory, this study utilizes newly released survey data to investigate issues regarding the national identity in Hong Kong and Macau that are governed under the “one country, two systems” principle. In both cities, we found a strong affinity for the local identity among the young generations, and a more balanced coexistence of both the local and the Chinese identities for the elder generations; there was a rejection of the Chinese identity for the young generation in Hong Kong. We argue that both civic and cultural elements are influential factors in shaping an individual’s identity, and that there is evidence of a complementing dual attachment; however, the complementary relationship becomes incompatible if generational differences are considered, suggesting that the dual attachment framework does not sufficiently address the issue of national identity for the young generation in Hong Kong.

Introduction
National identity, as a sense of belongingness among individuals in a society (Smith 2001), receives significant attention in comparative studies (e.g., Norton 1993; Phau and Chan 2003; Rosenthal and Hrynevich 1985). Usually, national identity refers to the extent to which people consciously regard themselves as members of the designated group that constitutes a nation (Chan 2000; Citrin, Wong, and Duff 2001). However, a nation can be distinct from the state or the country from which it resides in,
geographically speaking. For example, people may not consider themselves as belonging to a specific regime; or conversely, feel that some other groups who are not in the domain fall within it (Verba 1971). The construction of a national identity is a process of promoting commonality that involves identifying the “sameness” of “us,” while also differentiating “we” and “the others,” and defining our relation to “the others” (Hall 1996).

Although the concept of national identity is a nebulous mix of values, history, culture and citizenship, previous studies have identified that socio-economic factors (Fung 2004; Tse 2005; Yuen and Byram 2007), political involvement (Chan 2003; Veg 2017), and cultural background (Chan 2000; Lam 2010) have an influence on the national identity, e.g., a common language, shared customs and traditions (Stokes 2017). Smith (1992) argued that if a nation is a composite of people, land, and government, correspondingly, national identity is composed of ethnic (e.g., bloodline and ethnic groups), cultural (e.g., psychological attributes), and institutional (e.g., political and civic system) identities. Shulman (2002) suggested that in a model of national identity that encompasses ethnic, cultural, and civic elements, the related components of those elements can be arranged into an open-to-closed continuum. For example, citizenship as a component of the civic element, can be placed at the end of the continuum as “open” or voluntary; while ethnicity, being the key component of the ethnic element, is set at the end of the continuum as “closed” or ascribed. The rest of the components, such as territory, political ideology, religion, language, tradition, etc., are situated along the extremes of the national identity model (Grotenhuis 2016).

Smith (1986) argues that there may be instances of “dual attachment” in which an individual is loyal to two incongruent identity elements, such as the political system and the ethnic group (Brewer 1999; Hopkins 2011; Yee 2001). For instance, scholars argued that in Taiwan, an individual’s Chinese identity is related to ethnic affinity, while a person’s Taiwanese identity is associated with their political aspiration; yet the two identities can coexist and are complementary (Chen 2012; Chu and Lin 2001).

Being an integral part of one’s personal identity, the national identity does not easily adapt with the establishment of a new regime (Chan 2000). Considered as a psychological and cognitive mode of the individual, the national identity is closely related to the concept of what it means to be a citizen. Since the idea of a citizenry in contemporary China arose during late 19th century when China was oppressed and enslaved by the Western powers, the Chinese placed heavy emphasis on an individual’s obligation to China’s nation-state building (Guo 2014) rather than citizenship rights and democratic participation (Woodman and Guo 2017). Consequently, the concept of a citizen has influenced the process of
transitioning a national identity that used to be based on physical locations, such as the home, local communities, and family ties, to the one that is based on national, state, and political institutions (Guo 2014).

After Hong Kong was returned to China in 1997, becoming the Hong Kong Special Administrative Region of the People’s Republic of China (HKSAR), both the HKSAR government and the central government spent a tremendous amount of resources on promoting the citizens’ national identity as “Chinese” through government policies (Chou 2013; Yuen and Byram 2007), the mass media (Fung 2004; Mathews, Kit-Wai Ma, and Lui 2008), and grassroots patriotic events (Chen 2008; Wang 2012). In contrast—just sixty-five kilometres away, in a region sharing much in common with Hong Kong—Macau did not actively work to promote a “Chinese” identity after the transfer of sovereignty back to China in 1999, as there was the belief that the Macau people were more compliant with the Chinese national identity compared to their Hong Kong counterparts (Lam 2010). Although administered under the same “one country, two systems” principle, the disparities between the Chinese national identity between the two adjacent areas is widening, as seen through pro-democratic events (e.g., the Umbrella Movement), which are largely built on the tensions between the mainland Chinese and Hong Konger (Steinhardt, Li, and Jiang 2018; Veg 2017). Thus, it is reasonable to question why people sharing the same ethnic roots in two adjacent cities living under the same system have different responses to the Chinese national identity.

Taking advantage of the data collected from the Hong Kong Panel Study of Social Dynamics Survey (HKPSSD) and the Macau Social Survey (MSS), the current study seeks to gain a better understanding of the issues surrounding the disparities in national identity between Hong Kong and Macau, and to explore the factors that contribute to such discrepancies. In particular, we focus on the role that generational gaps play beyond the cultural and civic explanations.

The rest of this article is organized as follows: First, we begin by briefly introducing the background of the national identity in Hong Kong and Macau SARs. Next, a description of the data and methods used is presented, followed by our results and discussion. We conclude with a summary of our findings and suggestions for future studies.

**Background**

**National identity in Hong Kong**

By a series of unequal treaties (e.g., the Treaty of Nanking 1842), Britain gained the right of land and governed Hong Kong as a colony after
invading the territory in the 19th century during the Opium War (1839–1842). From the early years to the middle of the 20th century, the Chinese population was generally segregated from the British governors except for a small group of Chinese elites who played the role of communicators and mediators, bridging the colonial government and the Chinese community (King 1975; Lau 1982).

As a “borrowed place living on borrowed time” (Hughes 1976), Hong Kong was a harbour of refugees after WWII as people fled there from mainland China due to war (Hambro 1957), political persecution (Mathews, Kit-Wai Ma, and Lui 2008), and natural disasters (Almond et al. 2010; Smil 1999). Beginning in the 1950s, local pro-Beijing schools started to perpetuate Chinese nationalistic sentiments. With a Cold War mentality, the colonial government shut down some of these schools in fear of communism, and students were imbued with depoliticized school curriculum featuring a market-driven ideology and utilitarian aspect of education (Bray and Lee 1993; Leung and Ng 2004; Morris 1997). The English language as the medium of teaching was promoted and became a way for students to gain a competitive edge for further studies and career development (Sweeting and Vickers 2007).

Combined with economic development and the aging of the second generation of refugees, a strong Hong Kong identity that did not include the component of nationalism arose in the 1970s (Ma and Fung 2007; Veg 2017). The Hong Kong identity was generally defined by Chinese ethnicity, along with Hong Kong’s market capitalism, and unique commercial culture (Mathews, Kit-Wai Ma, and Lui 2008). After the Sino-British Joint Declaration was signed in 1984 that stipulated the sovereign, administrative, and handover arrangements of Hong Kong to China, Hong Kong society was deeply concerned about the uncertainty surrounding their future, which was further clouded with issues of the national identity among the locals (Chan 2000; Lau 1999). Although the Hong Kong people generally accepted China as the sovereign ruler, as well as the top-down efforts from the government to shape their national identification, the society struggled to articulate an alternative form of national identity that clearly distinguished between the nation and the state (Ma 2004). For example, Chan and Chan (2014) argued that Hong Kong people have taken a “liberal patriotism” position where they enjoy the rights and freedoms of a liberal democratic system with a conditional commitment to liberal values regarding issues of sovereignty and secession, e.g., Taiwan and Tibet independence (Chan and Chan 2014). In addition, although national identity had become one of the five priority values listed in education reform documents (Curriculum Development Council 2002), many Hong Kong people believe that the pride of being Chinese and being a Chinese citizen is not equivalent to a person’s
support for the ruling power and ideology of the Central Government; as such, the treatment of democracy and national identity is still controversial and dichotomous (Fairbrother 2005).

An emerging issue is that many young individuals, especially those who participate in pro-democratic movements, advocate that from a cultural or ethnic definition, the Chinese national identity is not compatible with the Hong Kong identity; instead, the younger generation downplays Chinese ethnicity and culture, and emphasizes elements typical of the Hong Kong identity, such as a civic community characterized by shared values of democracy and rule of law (Veg 2017). Applying the notion of peripheral nationalism that emphasizes the resistance of the periphery to the assimilation and incorporation from the center (Hechter 2001; Seiler 1989), Fong (2017) suggested that the rise of the new Hong Kong identity is a counteraction against Beijing’s efforts and strategies of incorporating Hong Kong to a centralizing state, as such strategies are regarded as an erosion and threat to Hong Kong being a preexisting peripheral nation. For instance, in recent years, social movements characterized by young individuals with strong local identification has been intensified, including defending Hong Kong’s autonomy, core values, lifestyle, and language against the invading mainlanders (Fong 2017), to more organized campaigns seeking self-determination and territorial secession (Cheng 2016; Ng and Fung 2016).

**National identity in Macau**

In the official narrative of the colonial government, Macau’s identity is a mixture of Portuguese and Chinese culture (Lam 2010; Kaeding 2010). To understand the current issue of the national identity in Macau, it is helpful to review its history as a colony. Macau’s history as the establishment of the Portuguese settlement started in 1557, despite the fact that the Portuguese did not gain real sovereignty or include Macau as a constitutional part of Portuguese territory until 1849 (Morais 1991). During this period, Macau gradually developed from an uninhabited coast to an entrepôt, and thrived as the main intermediary for trade between Asia and the rest of the world (Kaeding 2010). However, the colonial government was not closely connected with the predominant Chinese population, and no actions were taken to assimilate or promote social values (Kaeding 2010; Lam 2010).

In contrast to Hong Kong, Macau was a refugee centre during WWII, and enjoyed a brief period of economic prosperity as the only neutral port in South China (Gunn 2016; International Business Publications 2015). In the 1950s, similar to Hong Kong, pro-Beijing schools perpetuated the Chinese nationalistic sentiments in Macau. However, unlike Hong Kong, the Macau government adopted a laisse faire approach that
gave schools the freedom to develop their own history curriculum and discuss political and ideological issues in spite of the fact that education in Macau was also depoliticized (Chan 2004; Chong 2018). As a result, diversified ideologies diluted the effect of school curricula on building national identity among students (Journell 2012).

After the 12-3 incident (known in Portugal as the 1-2-3 Riot) in 1966, which was ignited by a protest of purposely delayed permission to build a private school sponsored by leftist organizations (Cheung 2009), the Portuguese administration in Macau was largely undermined, and the real power rested with pro-Beijing trade unions and business leaders under the influence of Beijing. Meanwhile, the pro-Taiwan (Kuomintang) factions were eliminated in Macau (Chan 2003). One of consequences of the de facto pro-Beijing control of Macau was the development of the Chinese national identity (Yee 2001).

Without a powerful sense of a strong local identity, Macau people were believed to be more ready to accept the state-defined Chinese national identity than their Hong Kong counterparts after the sovereignty of Macau was transferred to China in 1999 (Lam 2010). Furthermore, the success of the gambling industry has failed to bring a sense of pride and cultivate a local identity in the region. Until recently, a local identity involving the cultural and historical heritage had been emerging out of the government’s economic rationality in promoting the city’s cultural tourism (Lam 2010).

Current study

Previous studies have demonstrated that although the majority of the population in both cities are ethnic Chinese with similar cultural backgrounds, their national identity may differ in the ways that they choose to define the local identity. For example, the Chinese national identity and the local identity are arguably defined by cultural and ethnic elements in Macau. While in Hong Kong, the young generation may see the Chinese identity promoted by Beijing as incompatible with the local identity that is mainly delineated by civic/institutional elements. In contrast, the old generations in Hong Kong may share relatively similar ideas of the national identity with the people in Macau.

Previous scholarship, e.g., Smith (1992) and Shulman (2002), have provided a basic framework to understand the composition of one’s national identity, with the dual attachment theory further explaining the positive correlation between both the local and the Chinese identities. In addition, various topics related to national identity in Hong Kong have been studied from the political and policy perspectives, for example, political education (e.g., Leung and Ng 2004; Ma and Fung 2007), policy changes
on citizenship education (e.g., Fairbrother 2005; Lee 2008), and political participation (e.g., Lee and Chan 2005; Morris, Kan, and Morris 2000). However, except for a few cases (e.g., Chou 2010), there is still a lack of empirical investigation regarding the differences of the national identity between Hong Kong and Macau, especially for the generational gap on identity issues.

Built on previous work, e.g., Shulman’s model, we argue that, although those elements are still influential factors in shaping individuals’ identity and that there is evidence of complementing dual attachment, the complementary relationship may turn out to be incompatible if generational difference is considered. Therefore, we hypothesize that the positive correlation between the local identity and the Chinese national identity will be much weaker for the young generation (e.g., those who are less than twenty-five years old) compared to that for the old generations, controlling for other covariates. In addition, when facing a spectrum of identity raging from total “local” to total “Chinese,” the young generation is more likely to skew strongly toward the “local” end, compared to the older population that shows a high tendency toward the middle of the spectrum—a moderate balance of both “local” and “Chinese.”

**Data and methods**

**Data**

The current study utilizes two survey datasets from the HKPSSD and the MSS. The HKPSSD is a household-based longitudinal survey that collects both household and individual levels of information on social, economic, and behavioural characteristics to evaluate the impact of social and economic changes in Hong Kong (e.g., He and Wu 2019; Wu 2016; Zhang and Ye 2018). Computer-assisted personal interviews (CAPIs) are conducted every two years with Chinese individuals who are at least fifteen years old; speak Mandarin, Cantonese, or any other dialect; and who have been or will be living in Hong Kong for at least three months over the next six months in the selected households. To date, four waves of data collection have been completed since 2011. The current study uses the third wave of survey data from 2015, which yielded a sample of 3,467 adults and 449 children.

The MSS is also a household-based survey targeting any household defined as a group of people who occupy a land-based living unit, such as a house, an apartment or other group of rooms, or a single room in Macau. The households were randomly selected based on a multistage stratified cluster proportional to the size sampling design. CAPIs were conducted in 2017 and yielded 3,502 individuals from 2,604 households.
To date, the MSS is the only available large-scale social survey in Macau. Since more than 96% of the current population in both cities are ethnical Chinese and speak Cantonese, we only focus on the cultural and civic elements of the national identity.

Both of the surveys target the general population, implement similar sampling design, and share many modules and a variety of measures covering topics such as family dynamics, education, employment, well-being, migration, health, civil participation, etc., which provide a basis for comparative studies. To enable comparable results between the surveys, we employed an analytical strategy that allows for consistent units of analysis, as well as the consistent use of concepts and terms, the measurement and construction of indicators, and the statistical models for both of the datasets.

**Measures**

We chose three questions to measure the national identity in both data sets. For example, both the HKPSSD and MSS adopted a seven-point Likert scale to indicate how strongly respondents agreed with the following statements: 1) I am a Hong Konger/Macanese; and 2) I am a Chinese. Respondents were also asked to choose a number from 1 to 7 to indicate how strongly they identified with the national identities, with 1 for Hong Konger/Macanese, 4 for both, and 7 for Chinese.

Although HKPSSD and MSS are very similar in design, there are still substantial differences in the items included and the way they are administered. For example, instead of using the whole sample, only half of the individuals were randomly selected to answer the “Hong Konger/Macanese vs. Chinese” question in the HKPSSD. To alleviate the difficulty of making across-data comparisons due to different model specifications, we focused on the variables that were available in both surveys. As a result, we used the following variables found in both the HKPSSD and the MSS to measure the cultural element: whether the respondent has a temporary Hong Kong/Macau ID (temporary ID); the scale of political identity ranging from 1 (conservative) to 7 (liberal); whether the respondent participated (HKPSSD)/supported (MSS) the movement of Occupy Central; whether the respondent participated in (HKPSSD)/knew of (MSS) other local demonstrations; and whether the respondent voted in the latest legislation election as measures of the civic element; the place of birth (whether the respondent was local born); whether the respondent has no religious affiliation (no religion); the scale of Mandarin proficiency ranging from 1 (little) to 5 (fluent); and whether the respondent had been educated in China. We also controlled for demographic variables such as gender (female), age, and the level of education.
**Method**

Cumulative link models, such as ordered Logistic and ordered Probit models that link the observed categories to an underlying latent variable are the traditional choice for an ordered outcome. For example, an underlying latent response variable

$$\tilde{Y}_i = X_i \beta + e_i$$

where $X_i$ is the matrix of independent variables with the corresponding coefficients vector $\beta$; and $e_i$ is an error term that follows Normal or Logistic distribution for the $i$th individual. The latent response $\tilde{Y}_i$ is connected to the observed category $Y_i$ by a series of thresholds, for instance,

$$Y_i = k \text{ if } \theta_{k-1} < \tilde{Y}_i \leq \theta_k \text{ for } k \in \{1, \ldots, K\},$$

where $-\infty \equiv \theta_0 < \theta_1 < \ldots < \theta_{K-1} < \theta_K \equiv \infty$ are thresholds on the latent scale. Depending on the choice of distribution of the error term $e_i$, the ordered outcome can be modeled by a cumulative Logit or Probit model with the link specified as follows,

$$Pr(Y_i \leq k) = Pr(X_i \beta + e_i \leq \theta_k).$$

As we discussed in the previous section, the Chinese and the local identities might be positively correlated, as such, the correlation needs to be addressed while modeling the ordinal outcomes. To corroborate the correlation among multiple ordered outcomes, a recent extension proposed a multivariate ordinal model by assuming several latent variables with a joint error distribution (e.g., Pagui, and Canale 2016; Varin and Czado 2010). Suppose we have total $J$ number of ordinal outcomes for each of the individuals, and $Y_{ij}$ denotes the outcome of the $j$th variable for the $i$th individual. The observed $Y_{ij}$ takes value $k_j$ if $\theta_{k_j-1} < \tilde{Y}_{ij} \leq \theta_{k_j}$ for $k_j \in \{1, \ldots, K_j\}$, with $\tilde{Y}_{ij} = X_{ij} \beta_j + e_{ij}$ where $X_{ij}$ denotes the matrix of independent variables with the corresponding vector of coefficients $\beta_j$ for the $j$th outcome; $e_{ij}$ is from some suitable multivariate distribution. If the error vector $e_i = [e_{i1}, \ldots, e_{ij}]$ follows a multivariate normal distribution, a multivariate Probit link can be constructed (Nooraee et al. 2016; O’Brien and Dunson 2004).

One of the dependent variables employed in the present study is the scale of “local vs. Chinese” identity spectrum ranging from 1 to 7. If a regular ordered Logistic or Probit model is chosen, it would not be possible to detect if the young generation is more likely to be at the value 1 because of the parallel regression assumption (Ari and Yildiz 2014). Although the parallel regression assumption can be relaxed, for instance, if coefficients are allowed to vary across the ordered values, numerical issues may emerge due to the large number of parameters that need to be estimated (Kosmidis 2014). Instead, we adopted a modelling framework...
that mixes two distributions—a binary component for inflation and a regular component for outcome—to evaluate the tendency of concentration on certain values (e.g., Lambert 1992; Vieira, Hinde, and Demetrio 2000). Cai et al. (2018) proposed a generalized inflated cumulative ordered model that adds parametric components to address inflation on certain values. For example, suppose an ordinal random variable \( Y \) has inflated probabilities at values \( k_1, \ldots, k_m \in \{1, 2, \ldots, K\} \), the model can be specified as follows:

\[
p(Y_i \leq k | \beta, \pi_i, 1 \leq i \leq m) = \begin{cases} 
\pi_i + (1 - \sum_{i=1}^{m} \pi_i) \times pr(Y_i \leq k), & \text{if } k = k_1, \ldots, k_m \\
(1 - \sum_{i=1}^{m} \pi_i) \times pr(Y_i \leq k), & \text{if } k \neq k_i, 1 \leq i \leq m
\end{cases}
\]

where \( pr(Y_i \leq k) \) is the cumulative probability at the ordered value \( k \) and \( 1 < k \leq K \); and \( \pi_i \) is the probability of inflation at the value \( k_i \) with \( 1 \leq i \leq m \), and \( \sum_{i=1}^{m} \pi_i \in (0, 1) \). The probability of inflation at the value \( k_i \), \( \pi_i \), could also depend on covariates. For example, if a logit model is specified,

\[
\pi_i = \frac{1}{1 + \exp(-z_i' \gamma)}
\]

where \( z_i \) and \( \gamma \) is the matrix of predictors for the \( i \)th observation and the vector of corresponding parameters, respectively.

**Results**

**Descriptive statistics**

Table 1 summarizes the variables included in the study. For the local identity, on average the respondents from the HKPSSD reported a mean of 5.569 (SD = 1.497) out of the seven-point Likert scale; while the respondents from the MSS showed a slightly higher value on the local identity with a mean of 5.928 (SD = 1.356). Similar to the local identity, the average score for the Chinese identity from the MSS is higher than that from the HKPSSD. If a conventional t-test is conducted, both of the differences are highly significant \((p < .001)\). While for the “local vs. Chinese” scale, the average reported from the HKPSSD respondents shows only a slightly lower value (4.130 vs. 4.194) with marginal significance \((p = .09)\). For the demographic variables, compared to the respondents from the MSS, the respondents from the HKPSSD are relatively older (50.080 vs. 45.335, \( p < .001 \)), have no difference in the proportion of female (.527 vs. .514), and are less educated, e.g., there are higher proportions of elementary school (.303 vs. .239, \( p < .001 \)) and middle school (.477 vs. .219, \( p < .001 \)).
while there are lower proportions of high school (.099 vs. .255, p < .001) and college and above (.119 vs. .286, p < .001). The HKPSSD sample also contains higher proportions of local born (.596 vs. .563, p < .001), having temporary ID (.118 vs. .062, p < .001), voted in the last legislation election (.467 vs. .411, p < .001), and no religious affiliation (.819 vs. .701, p < .001); while there are lower levels of political liberty (4.258 vs. 4.366, p < .001), and Mandarin proficiency (2.762 vs. 3.160, p < .001), and a lower proportion of educated in China (.264 vs. .570, p < .001). About 5.5% of the respondents from the HKPSSD participated in the Occupy Central movement, and the respondents of the MSS showed high support (Mean = 5.343, SD = 2.602) for the Occupy Central. Slightly less than 5% of the respondents in the HKPSSD participated in other political demonstrations, such as the Hong Kong July 1st March, memorials for the 1989 Tiananmen Square protests, and the Moral & National Education protests. About 8% of the MSS respondents were aware of political demonstrations in Macau. Since the instruments for these two variables either asked for different aspects or adopted inconsistent scales, no statistical test was conducted.

### Effects of civic and cultural elements on the correlated local and Chinese identities

Table 2 reports the estimated results from a bivariate ordinal logistic model (BOLM) for both the local and Chinese identities. For the

<table>
<thead>
<tr>
<th>Variable</th>
<th>HKPSSD</th>
<th>N</th>
<th>MSS</th>
<th>N</th>
<th>Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local identity</td>
<td>5.569(1.497)</td>
<td>2488</td>
<td>5.928(1.356)</td>
<td>2583</td>
<td>-0.359***</td>
</tr>
<tr>
<td>Chinese identity</td>
<td>5.056(1.740)</td>
<td>2488</td>
<td>5.742(1.477)</td>
<td>2554</td>
<td>-0.686***</td>
</tr>
<tr>
<td>Local vs. Chinese</td>
<td>4.13(1.628)</td>
<td>2579</td>
<td>4.194(1.029)</td>
<td>2554</td>
<td>-0.064</td>
</tr>
<tr>
<td>Age</td>
<td>50.080(19.255)</td>
<td>5160</td>
<td>45.335(17.661)</td>
<td>2626</td>
<td>4.745***</td>
</tr>
<tr>
<td>Female</td>
<td>0.527(0.499)</td>
<td>5160</td>
<td>0.514(0.500)</td>
<td>2626</td>
<td>0.013</td>
</tr>
<tr>
<td>Edu = Elementary school</td>
<td>0.303(0.460)</td>
<td>5137</td>
<td>0.239(0.426)</td>
<td>2622</td>
<td>0.064***</td>
</tr>
<tr>
<td>Middle school</td>
<td>0.477(0.500)</td>
<td>5137</td>
<td>0.219(0.414)</td>
<td>2622</td>
<td>0.257***</td>
</tr>
<tr>
<td>High school</td>
<td>0.099(0.299)</td>
<td>5137</td>
<td>0.255(0.436)</td>
<td>2622</td>
<td>-0.156***</td>
</tr>
<tr>
<td>College &amp; up</td>
<td>0.119(0.324)</td>
<td>5137</td>
<td>0.286(0.452)</td>
<td>2622</td>
<td>-0.168***</td>
</tr>
<tr>
<td>Local born</td>
<td>0.596(0.491)</td>
<td>5051</td>
<td>0.563(0.496)</td>
<td>2626</td>
<td>0.032***</td>
</tr>
<tr>
<td>Temporary ID</td>
<td>0.118(0.322)</td>
<td>5160</td>
<td>0.062(0.241)</td>
<td>2626</td>
<td>0.056***</td>
</tr>
<tr>
<td>Part. /Supp. Occ. Cent.</td>
<td>0.055(0.228)</td>
<td>5160</td>
<td>5.343(2.602)</td>
<td>1914</td>
<td>-</td>
</tr>
<tr>
<td>Part. /Knew Demo.</td>
<td>0.048(0.214)</td>
<td>5160</td>
<td>0.087(0.282)</td>
<td>2622</td>
<td>-</td>
</tr>
<tr>
<td>Political identity</td>
<td>4.258(1.162)</td>
<td>5066</td>
<td>4.366(1.245)</td>
<td>2415</td>
<td>-0.109***</td>
</tr>
<tr>
<td>Voted</td>
<td>0.467(0.499)</td>
<td>5157</td>
<td>0.411(0.492)</td>
<td>2611</td>
<td>0.056***</td>
</tr>
<tr>
<td>No religion</td>
<td>0.819(0.385)</td>
<td>5160</td>
<td>0.701(0.458)</td>
<td>2626</td>
<td>0.119***</td>
</tr>
<tr>
<td>Mandarin proficiency</td>
<td>2.762(1.158)</td>
<td>5159</td>
<td>3.160(1.363)</td>
<td>2620</td>
<td>-0.398***</td>
</tr>
<tr>
<td>Educated in China</td>
<td>0.264(0.441)</td>
<td>4815</td>
<td>0.570(0.495)</td>
<td>2626</td>
<td>-0.306***</td>
</tr>
</tbody>
</table>

Note: p value is obtained from two-sample t-test for sample means or z-test for proportions for dummy variables. *p < .05, **p < .01, ***p < .001.
HKPSSD respondents, having a temporary ID is negatively associated with the Hong Kong identity, which is probably related to migration status. Individuals who participated in the Occupy Central movement show a higher value of the local identity, but a lower value of the Chinese identity on the log odds scale. In other words, compared to those who did not participate the movement, the odds ratio of having a higher value would increase by a factor of 2.20 (exp(.788)) on the Hong Kong identity, and decrease by a factor of .42 (exp(-.859)) on the Chinese identity for those who did participate, holding all the other variables constant. As the value of political identity scale increases towards being more liberal, the log odds ratio of having a higher local identity also increases, though it does not have the same effect on the Chinese identity. Participating in other political demonstrations was negatively correlated to the log odds of having a high value on the Chinese identity, whereas the effect is not significant for the local identity. For instance, for those who participated in political demonstrations, the odds ratio of having a high value on the Chinese identity dropped to half (exp(-.584)¼.56) compared to those who did not. People who voted in the last legislation election tended to have a higher odds ratio of having a high value on the Chinese identity

Table 2. Results for local and Chinese identities using bivariate ordinal logistic models.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>HKPSSD</th>
<th>MSS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hong Konger(HK)</td>
<td>Chinese(CN)</td>
</tr>
<tr>
<td></td>
<td>Beta(std.err.)</td>
<td>Beta(std.err.)</td>
</tr>
<tr>
<td>Intercept 1 vs 2</td>
<td>-3.036(0.325)***</td>
<td>-2.381(0.303)***</td>
</tr>
<tr>
<td>2 vs 3</td>
<td>-2.807(0.320)***</td>
<td>-1.788(0.295)***</td>
</tr>
<tr>
<td>3 vs 4</td>
<td>-2.245(0.309)***</td>
<td>-1.063(0.288)***</td>
</tr>
<tr>
<td>4 vs 5</td>
<td>-0.999(0.293)***</td>
<td>0.311(0.284)</td>
</tr>
<tr>
<td>5 vs 6</td>
<td>0.263(0.291)</td>
<td>0.957(0.285)***</td>
</tr>
<tr>
<td>6 vs 7</td>
<td>0.921(0.291)***</td>
<td>1.518(0.286)***</td>
</tr>
<tr>
<td>Age</td>
<td>-0.005(0.003)***</td>
<td>0.012(0.003)***</td>
</tr>
<tr>
<td>Female</td>
<td>0.045(0.079)</td>
<td>0.072(0.077)</td>
</tr>
<tr>
<td>High school</td>
<td>0.150(0.133)</td>
<td>0.075(0.131)</td>
</tr>
<tr>
<td>College+</td>
<td>0.062(0.132)</td>
<td>-0.124(0.125)</td>
</tr>
<tr>
<td>Temporary ID</td>
<td>-0.222(0.128)</td>
<td>-0.187(0.121)</td>
</tr>
<tr>
<td>Part./Supp. Occ. Cent.</td>
<td>0.788(0.213)***</td>
<td>-0.859(0.193)***</td>
</tr>
<tr>
<td>Political identity</td>
<td>0.211(0.033)***</td>
<td>0.002(0.034)</td>
</tr>
<tr>
<td>Part. /Knew Demo.</td>
<td>-0.325(0.227)</td>
<td>-0.584(0.208)**</td>
</tr>
<tr>
<td>Voted</td>
<td>0.047(0.085)</td>
<td>0.434(0.083)***</td>
</tr>
<tr>
<td>Local born</td>
<td>0.045(0.116)</td>
<td>-0.273(0.113)*</td>
</tr>
<tr>
<td>No religion</td>
<td>-0.214(0.109)</td>
<td>-0.126(0.103)</td>
</tr>
<tr>
<td>Mandarin proficiency</td>
<td>-0.017(0.041)</td>
<td>0.089(0.039)*</td>
</tr>
<tr>
<td>Educated in China</td>
<td>-0.467(0.129)***</td>
<td>0.176(0.131)</td>
</tr>
<tr>
<td>Correlation</td>
<td>0.224(0.027)***</td>
<td>0.702(0.019)***</td>
</tr>
<tr>
<td>N</td>
<td>2292</td>
<td>1673</td>
</tr>
<tr>
<td>logL</td>
<td>-7166.89</td>
<td>-4474.82</td>
</tr>
<tr>
<td>AIC</td>
<td>14413.12</td>
<td>9029.5</td>
</tr>
<tr>
<td>BIC</td>
<td>14640.74</td>
<td>9246.02</td>
</tr>
</tbody>
</table>

Note: *p < .05, **p < .01, ***p < .001.
For the measures of the cultural elements, two variables are significant at the .05 level—the level of Mandarin proficiency, which is positively associated with the odds ratio of having a high value on the Chinese identity, and whether the respondent is local born are both negatively connected to the odds ratio. In addition, if the respondent obtained his/her degree in China, the model predicts that the odds ratio of having a high value on the local identity would be reduced by about 40% (1-exp(−.467)).

For the respondents from the MSS, unlike their counterparts from the HKPSSD, interestingly, many measures of the civic and cultural elements have similar effects on both the local and the Chinese identities, which is consistent with the dual identity hypothesis where the two identities covary together. For instance, the variables political identity, aware of political demonstrations, voted in the last legislation, and level of Mandarin proficiency have positive effects; likewise, the variable support the movement of occupy central shows negative effects on both of the identities.

Besides the fixed effects, both of the datasets report a moderate (HKPSSD=.224) to high (MSS=.702) level of positive correlation between the two identities after controlling for all covariates. To further explore the pattern of correlation, we estimated the bivariate ordinal logistic model again with the same set of covariates and a five-year cohort for the correlation structure. Since the fixed effects are consistent to what is reported in Table 1, we only presented the estimated correlations. Figure 1 depicts the estimated correlation across age groups for the two datasets. Although comparing the estimate values obtained from the two datasets
might not be appropriate due to the different variables/measures included, variations of correlation across age groups still reveal valuable information. For example, the value of the estimated correlation increases as the cohort advances for the respondents from the HKPSSD. Specifically, the positive correlation is only present at age 40 and above if sampling errors are considered. It is possible that among young generations, e.g., 15 to 19 ($\rho=.004$) or 30 to 34 ($\rho=.023$), the correlation might even be negative, indicating a non-complementary relationship between the local and the Chinese identities. While the estimated correlation for the MSS respondents does not show a strong tendency of increasing across age groups, although the value reaches its peak for age group 50–54 ($\rho=.844$).

**Effect of civic and cultural elements on the local vs. the Chinese identities**

To investigate the possible concentration of values on the “local vs. Chinese” scale, e.g., the tendency that respondents are more likely to choose certain values beyond what the regular ordinal model can explain, we estimated an Inflated Ordinal Logistic Model (IOLM) for both of the HKPSSD and the MSS respondents, with the results presented in Table 3. Essentially, the IOLM contains two components—the Logit component that handles the extra number of observations on certain values, and the regular ordinal Logistic part for the ordinal outcome. The underlying hypothesis of the IOLM is that for any value of the ordinal outcomes, there is a separate process that generates an extra number of observations on that value (Cai et al. 2018). For example, for some people who chose the extreme value of 1 on the scale, the choice of 1 can be explained by the effects of the covariates included in the ordinal part (e.g., gender, age, political identity, etc.); while for others, the choice of 1 might be driven by a separate mechanism, for example, a mentality that strongly favors the local identity, which can be captured by the logit part of the IOLM.

For each of the datasets, we estimated two models; Model 1 is a regular ordinal Logistic model, and Model 2 includes Logit components for the inflation points on values 1, 4, and 7, besides the regular ordinal Logistic part. Consistent to the findings reported in Table 2, for the respondents of the HKPSSD, those who were local born, participated in the movement of Occupy Central, and were more liberal were less likely to have a high value on the scale; while those who were older, or educated in China were more likely to have a high value, in that they were more inclined towards the Chinese identity. Furthermore, the significant intercept for each of the Logit parts indicates a possible inflation. Built on exploratory analysis, we only included a dummy variable for whether the respondent is less than twenty-five years old in the three Logits, which
was significant for both the values 1 and 7. For instance, individuals who are younger than twenty-five years old were 6.26 times ($\exp(1.983)-1$) more likely to report 1 (*Hong Konger*) and .44 times ($1-\exp(-0.575)$) less likely to report 7 (*Chinese*) compared to their counterparts, which indicated a strong favor towards the local identity and an avoidance of the Chinese identity among the young generation.

Akin to the respondents of the HKPSSD, the MSS respondents who were local born and supported the Occupy Central movement, showed a strong negative association to having a high value on the scale; though unlike the HKPSSD respondents, the political identity and awareness of political demonstrations were positively linked to having a high value. In terms of inflations, the MSS respondents do not show a tendency of inflation on the value 4 (*both Macanese and Chinese*); however, there is still a noticeable concentration for the values 1 and 7. Although the young generation does not appear to have a strong avoidance of the Chinese

<table>
<thead>
<tr>
<th>Parameter</th>
<th>HKPSSD Model 1</th>
<th>HKPSSD Model 2</th>
<th>MSS Model 1</th>
<th>MSS Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation@1 Intercept</td>
<td>$-4.133(0.883)^{**}$</td>
<td>$-5.097(0.838)^{***}$</td>
<td>$-5.017(0.838)^{***}$</td>
<td>$-5.806(0.627)^{***}$</td>
</tr>
<tr>
<td>Age $\leq 25$ Intercept</td>
<td>$1.983(0.779)^{*}$</td>
<td>$1.366(0.773)^{**}$</td>
<td>$1.200(2.834)^{***}$</td>
<td>$1.59(0.542)^{***}$</td>
</tr>
<tr>
<td>Inflation@4 Intercept</td>
<td>$-0.566(0.192)^{**}$</td>
<td>$-0.285(0.292)^{***}$</td>
<td>$-0.250(0.526)^{***}$</td>
<td>$-0.159(0.542)^{***}$</td>
</tr>
<tr>
<td>Age $\leq 25$ Intercept</td>
<td>$-0.621(1.623)^{**}$</td>
<td>$-2.100(2.834)^{***}$</td>
<td>$-0.996(0.555)^{**}$</td>
<td>$-0.159(0.542)^{***}$</td>
</tr>
<tr>
<td>Intercept 1 vs 2</td>
<td>$-3.607(0.311)^{***}$</td>
<td>$-4.878(0.382)^{***}$</td>
<td>$-5.806(0.627)^{***}$</td>
<td>$1.59(0.542)^{***}$</td>
</tr>
<tr>
<td>2 vs 3</td>
<td>$-3.050(0.308)^{***}$</td>
<td>$-3.763(0.368)^{***}$</td>
<td>$-4.141(0.524)^{***}$</td>
<td>$-0.159(0.542)^{***}$</td>
</tr>
<tr>
<td>3 vs 4</td>
<td>$-2.035(0.303)^{***}$</td>
<td>$-2.601(0.362)^{***}$</td>
<td>$-2.502(0.526)^{***}$</td>
<td>$-0.159(0.542)^{***}$</td>
</tr>
<tr>
<td>4 vs 5</td>
<td>$0.049(0.300)^{**}$</td>
<td>$0.376(0.356)^{**}$</td>
<td>$0.996(0.555)^{**}$</td>
<td>$0.159(0.542)^{**}$</td>
</tr>
<tr>
<td>5 vs 6</td>
<td>$0.498(0.301)^{**}$</td>
<td>$1.297(0.362)^{**}$</td>
<td>$0.159(0.542)^{**}$</td>
<td>$0.159(0.542)^{**}$</td>
</tr>
<tr>
<td>6 vs 7</td>
<td>$0.824(0.302)^{**}$</td>
<td>$2.505(0.386)^{**}$</td>
<td>$1.957(0.752)^{**}$</td>
<td>$0.159(0.542)^{**}$</td>
</tr>
<tr>
<td>Age</td>
<td>$0.020(0.003)^{***}$</td>
<td>$0.006(0.004)^{***}$</td>
<td>$0.005(0.005)^{***}$</td>
<td>$0.005(0.005)^{***}$</td>
</tr>
<tr>
<td>Female</td>
<td>$-0.037(0.077)^{**}$</td>
<td>$0.115(0.093)^{**}$</td>
<td>$0.041(0.130)^{**}$</td>
<td>$0.041(0.130)^{**}$</td>
</tr>
<tr>
<td>High school</td>
<td>$0.053(0.126)^{**}$</td>
<td>$0.105(0.127)^{**}$</td>
<td>$0.083(0.178)^{**}$</td>
<td>$0.083(0.178)^{**}$</td>
</tr>
<tr>
<td>College+</td>
<td>$0.277(0.126)^{**}$</td>
<td>$0.057(0.146)^{**}$</td>
<td>$0.041(0.196)^{**}$</td>
<td>$0.041(0.196)^{**}$</td>
</tr>
<tr>
<td>Local born</td>
<td>$-0.399(0.118)^{***}$</td>
<td>$0.463(0.135)^{**}$</td>
<td>$-0.614(0.204)^{**}$</td>
<td>$-0.159(0.542)^{**}$</td>
</tr>
<tr>
<td>Temporary ID</td>
<td>$0.185(0.125)^{**}$</td>
<td>$0.202(0.241)^{**}$</td>
<td>$0.303(0.379)^{**}$</td>
<td>$0.303(0.379)^{**}$</td>
</tr>
<tr>
<td>Part./Supp. Occ. Cent.</td>
<td>$-0.355(0.188)^{**}$</td>
<td>$-0.698(0.173)^{**}$</td>
<td>$-1.166(0.404)^{**}$</td>
<td>$-1.166(0.404)^{**}$</td>
</tr>
<tr>
<td>Political identity</td>
<td>$-1.199(0.190)^{***}$</td>
<td>$0.045(0.019)^{**}$</td>
<td>$0.075(0.030)^{**}$</td>
<td>$0.075(0.030)^{**}$</td>
</tr>
<tr>
<td>Part. /Knew Demo.</td>
<td>$0.070(0.036)^{**}$</td>
<td>$0.370(0.043)^{**}$</td>
<td>$0.567(0.069)^{**}$</td>
<td>$0.567(0.069)^{**}$</td>
</tr>
<tr>
<td>Voted</td>
<td>$-0.051(0.082)^{**}$</td>
<td>$-0.137(0.100)^{**}$</td>
<td>$-0.247(0.139)^{**}$</td>
<td>$-0.247(0.139)^{**}$</td>
</tr>
<tr>
<td>No religion</td>
<td>$0.186(0.103)^{**}$</td>
<td>$0.006(0.106)^{**}$</td>
<td>$-0.033(0.143)^{**}$</td>
<td>$-0.033(0.143)^{**}$</td>
</tr>
<tr>
<td>Mandarin proficiency</td>
<td>$0.050(0.039)^{**}$</td>
<td>$-0.044(0.041)^{**}$</td>
<td>$-0.039(0.057)^{**}$</td>
<td>$-0.039(0.057)^{**}$</td>
</tr>
<tr>
<td>Educated in China</td>
<td>$0.206(0.129)^{**}$</td>
<td>$0.008(0.142)^{**}$</td>
<td>$-0.031(0.187)^{**}$</td>
<td>$-0.031(0.187)^{**}$</td>
</tr>
<tr>
<td>N</td>
<td>2353</td>
<td>2353</td>
<td>1806</td>
<td>1806</td>
</tr>
<tr>
<td>−2LL</td>
<td>7364.9</td>
<td>7331.4</td>
<td>4651.5</td>
<td>4624.4</td>
</tr>
<tr>
<td>AIC</td>
<td>7402.9</td>
<td>7381.4</td>
<td>4689.5</td>
<td>4677.4</td>
</tr>
<tr>
<td>BIC</td>
<td>7512.4</td>
<td>7525.5</td>
<td>4794.0</td>
<td>4814.9</td>
</tr>
</tbody>
</table>

Note: *$p < .05$, **$p < .01$, ***$p < .001$.*
identity, a perceptible inclination towards a strong local identity has appeared. For instance, those who are younger than twenty-five years old were $2.91 \times \exp(1.366) - 1$ times more likely to report the value 1 (Macanese) compared to the other age groups.

**Discussion and conclusion**

In the research reported herein, we utilized two comparable datasets, the HKPSSD and the MSS, to explore factors that contribute to the widening gap on issues of national identity between two cities under the same “one country two systems” principle. Consistent with many previous studies, two measures of the national identity (both the local and the Chinese identities) were investigated; however, unlike the previous studies where the two identities were analyzed separately, the current study focused on the correlation between the two measures. By implementing a BOLM, we found that among the HKPSSD respondents, a positive correlation between the local and the Chinese identities only exists for those who were 40 years old and above, controlling for the effects of cultural and civic elements of the national identity. Furthermore, according to the results from the IOLM, when facing the choice between the local and the Chinese, many young people showed a strong favor towards the local identity and an avoidance of the Chinese identity. Combined, these two pieces of evidence suggest that the dual identity might not be pertinent for the young generation in Hong Kong. In contrast, it is evident that the local and the Chinese identities still coexist and are complementary in Macau, although there is a similar inclination towards a strong local identity for the young generation. To the best of our knowledge, this is the first comparative study that empirically examines the dual identity in these two cities.

Nonetheless, our study is potentially limited in several respects. First of all, our results are based on the available measures in both datasets. Due to the complex nature of the concept of national identity, the scales we adopt in the current study are proxies because they might not measure or cover the entire concept of national identity despite the fact that similar scales have been used in many studies (e.g., Fung 2004; Ma and Fung 2007; Morris, Kan, and Morris 2000). In addition, although the two surveys are very similar in design, owing to the unavailability of many measures, especially for the civic and cultural elements, the validity of our models might be subject to those limiting conditions. We conducted additional analyses using each of the datasets to include more measures on the civic and the cultural elements, and the results were very similar to those reported in Table 2. Admitting that it is not possible to elaborate on all the model specifications, we are confident that the results, at least
in part, may be representative. Furthermore, due to the limited information available in the two datasets, we were unable to evaluate the effect of identity politics, which not only are important in shaping one’s national identity, but also have crucial policy implications. However, as both surveys target the general population, we are lacking detailed information on political education, which leaves us in no position to discuss identity politics. Although our results indicate that the dual attachment framework might not be sufficient to explain the variation of the measures of national identity, without further information on identity politics or follow-up data, we do not have enough evidence to evaluate how the effect of cultural and civic factors differ from that of identity politics.

Secondly, since only a randomly selected half of the HKPSSD sample were asked to answer the “Hong Konger vs. Chinese” question, the results presented in Tables 2 and 3 for the HKPSSD respondents might not be comparable, which jeopardizes the generalizability of our findings. Despite the fact that there is no feasible way to compensate for the deficiencies caused by the selective attrition, we estimated a multivariate ordinal model using all three dependent variables for the MSS respondents to evaluate potential inconsistencies due to the model specification. The results were highly consistent to those reported in Table 2. While it is possible that the randomness would cancel systematic differences between those who were and were not selected for the HKPSSD respondents, caution still should be exercised in attempting to generalize our results. Moreover, as a fundamental methodological issue in comparative studies, it can be extremely hard, if not entirely impossible, to justify that the two observational datasets are totally comparable. For instance, although the two cities share many things, such as language, culture, media, and the “one country two systems” principle, there are indisputable differences in institutional, social, political, and educational features between the two SARs, which may lead to misrepresentative comparisons. Thus, the purpose of this study is to build relations within each of the datasets, not across them. Cautions need to be taken if direct comparisons are conducted because observed differences might be due to intrinsic structural or institutional reasons.

Last but not least, we acknowledge that using two cross-sectional datasets to access the actual and dynamic process of building a national identity is not achievable. For instance, we are lacking in evidence to identify what changes one can expect in the national identity when the young generations become adults, although our results did indicate that the dual attachment theory might not be suitable to explain the pattern of national identity among the young generation. Therefore, the current study is just a small attempt to garner a greater understanding into a much larger
issue, and our model could be further improved if longitudinal information were to be made available in the future.

Albeit the limitations above, the present study provides empirical evidence that shows a strong tendency towards the local identity among the young generations, and a coexistence of both the local and the Chinese identities for the elder generations in both cities, after controlling for the covariates drawn from Shulman’s model. Consistent to the previous studies, our results indicate an avoidance of the Chinese identity for the young generation in Hong Kong, as well as a similar tendency in Macau. While both cities benefit from the booming economy of mainland China, an optimistic disposition towards the economy does not inspire a strong Chinese identity, especially among the young generation. As the effect of the national identity on the stability and the cohesion of a nation receives increasing attention from both the government and the scientific communities, further research is needed to monitor and explore the dynamic changes on the issues of national identity.

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