Learning and Socializing Preferences in Hong Kong Chinese Children

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The impact of social group information on the learning and socializing preferences of Hong Kong Chinese children were examined. Specifically, the degree to which variability in racial out-group exposure affects children’s use of race to make decisions about unfamiliar individuals (Chinese, White, Southeast Asian) was investigated. Participants (N = 212; M_age = 60.51 months) chose functions for novel objects after informants demonstrated their use; indicated with which peer group member to socialize; and were measured on racial group recognition, preference, and identification. Overall, children preferred in-group members, though out-group exposure and the relative social status of out-groups mattered as well. At a young age, children’s specific experiences with different races influence how they learn and befriend others across racial group lines.

Social interactions shape how children learn from and identify with others. By the time they enter preschool, children are highly selective, using numerous cues to determine trustworthiness (Harris, 2012; Harris & Koenig, 2006; see Corriveau & Harris, 2010b; Mills, 2013 for reviews). Children attend to epistemic (e.g., previous accuracy; S. Birch, Vauthier, & Bloom, 2008; Corriveau & Harris, 2009a, 2009b; Jaswal & Neely, 2006) and social cues (e.g., consensus; Corriveau, Fusaro, & Harris, 2009; Corriveau & Harris, 2010a; Corriveau, Kim, Song, & Harris, 2013; DiYanni, Corriveau, Kurkul, Narsini, & Deniela, 2015). The deliberate use of these cues is impacted by children’s awareness of the social groups to which the informants belong, such as race (Chen, Corriveau, & Harris, 2011, 2013). Here, we examine how exposure to social out-groups may influence children’s learning and socializing preferences. We measure racial group preferences in Hong Kong, where children of Chinese descent are exposed regularly to members of two racial out-groups (White, Southeast Asian) within two different contexts—home and school.

The ability to use social group information is an early-emerging skill (Kinzler & Spelke, 2011). By preschool, children show a robust implicit preference, comparable to adults, for their own racial in-groups over out-groups (Dunham, Chen, & Banaji, 2013; Qian et al., 2016). Children also show explicit social preferences for social in-groups based on gender and age (Shutts, Banaji, & Spelke, 2010). These in-group preferences are especially prevalent among racial majority children (Dunham et al., 2013; Kinzler & Spelke, 2011).

The degree to which children prefer their social in-group members depends on their respective in-groups. Gaither et al. (2014) found that White American children aged 3–8 years preferred to learn from and socialize with racial in-group over out-group (Black, Asian) adults and children, respectively. However, monoracial Black American and Asian American children showed no preference for their racial in-group. Similarly, other research

This research was supported by an Early Career Scheme Grant (project number: 26400014) from the Hong Kong Research Grants Council to Eva E. Chen and by the National Academy of Education/Spencer Foundation to Kathleen H. Corriveau. We thank the Yan Oi Tong Foundation, Vincent Chow, Jason Chui, Cecilia Ng, Christine Tong, and Ivy Tse for their invaluable assistance on data collection and analysis.

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DOI: 10.1111/cdev.13083
has demonstrated that Black preschool and early-elementary school-aged children in South Africa show no preference for members of their racial in-group (Shutts, Kinzler, Katz, Tredoux, & Spelke, 2011), and that racial minority children in the United Kingdom are less likely to choose in-group members as playmates (Leman & Lam, 2008). This lack of racial in-group preference may be attributed to children’s awareness of relative social group status. For instance, children from South Africa (Olson, Shutts, Kinzler, & Weisman, 2012) and the United States (Shutts, Brey, Dornbusch, Sylwotsky, & Olson, 2016) are more likely to categorize White families as having wealth—an indicator of social status—than Black families.

To date, research has largely focused on how young children from high-status majority groups and from lower-status minority out-groups evaluate one another. Less is known about children who belong to a majority social group that may not occupy the highest social status (but see Shutts et al., 2011). Thus, we examine Chinese children born and raised in Hong Kong, a Special Administrative Region in the People’s Republic of China. The majority (94%) of Hong Kong residents identify as racially Chinese (Census and Statistics Department: Hong Kong Special Administrative Region, 2012), and are often exposed to two other racial groups at home and school—one lower-status group (Southeast Asian) due to Hong Kong’s current policy of hiring Filipino or Indonesian domestic workers (Cortés & Pan, 2013) and one higher-status group (White) because of its past as a British colony (Guan et al., 2011).

One in three Hong Kong households with young children employs a domestic worker, who usually lives full-time in the same residence (Cortés & Pan, 2013; Groves & Lui, 2012). These workers can substantially impact children’s development. Previous work has shown that their caregiving style, especially perceived warmth and control, relates to children’s social competence, such as their ability to communicate with adults (e.g., Ip, Cheung, McBride-Chang, & Chang, 2008). Additionally, before British colonization ended in 1997, approximately 80% of the secondary schools used English as the main language of instruction (Chiu & Hong, 1999). Currently, kindergartens still determine their main instructional language. In international kindergartens (10.6% of Hong Kong kindergartens; Ng, Sun, Lau, & Rao, 2017), students (the majority of whom are Chinese) receive English language instruction, often provided by White teachers, along with their Cantonese lessons (R. Wong, Perry, MacWhinney, & I. Wong, 2013). In contrast, local kindergartens (89.4% of kindergartens; Ng et al., 2017) typically employ all Chinese teachers and only use Cantonese for instruction (Education Bureau: The Government of the Hong Kong Special Administrative Region, 2015). Such variability in racial out-group exposure, at home and at school, may differentially influence children’s preferences.

Consistent with past research on children’s understanding of social group information (e.g., Gaither et al., 2014; Shutts et al., 2010, 2011), we focused on preschool children, allowing us to examine their consideration of social groups once they formally enter school. Because these children are members of the racial majority, we expected that they would exhibit a robust in-group preference when choosing from whom to learn and with whom to socialize (race hypothesis; e.g., Dunham et al., 2013). Second, we predicted that children would be sensitive to the social status of their in-group relative to other groups, and that their in-group preference would be stronger against a lower-status out-group than against a higher-status group (status hypothesis). Finally, we anticipated that children would consider their familiarity with out-group members when exhibiting their preferences for in-group members, showing less in-group bias—especially when choosing from which adult (in-group vs. out-group) to learn—if they interacted regularly with White teachers at school or with Southeast Asian domestic workers at home (familiarity hypothesis).

Method

Participants

Hong Kong Chinese children (N = 212; 105 female; M_age = 60.51 months, SD = 7.21 months; age range = 48–78 months) in their second or third (final) kindergarten year were recruited from January 2015 to June 2015. Parents who shared family income information (n = 190) identified as high-income (18.9%), middle-income (59.5%), and low-income (21.6%). Most families reported living in communities inhabited by Chinese residents (83.5%); and for nearly all families (98%), their child’s closest friend was racially Chinese. Children from two types of kindergartens (local, international) and from two kinds of families (with domestic workers or without) were included (see Table 1). A power analysis showed a sample size of 36 participants for each of the four groups, or 144 participants in total, would be sufficient (n determined by
F-test with $df = 4$, a medium effect size, $f = .25$, and $\alpha = .05$; see Cohen, 1992). Although there were fewer participants in two of the groups (international schoolchildren raised with no domestic workers and local schoolchildren raised with domestic workers), post hoc analyses using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) revealed that we had 95.1% power to detect a medium effect size, $f = .25$.

Materials

The learning preferences task included two pairs of female adult informants wearing differently-colored t-shirts, each consisting of a racial in-group (Chinese) member paired with an out-group (White, Southeast Asian) member. They sat at a table with neutral affect and silently demonstrated a novel object function (see Table 2).

In the socializing preferences task, four pictures of children (matched for participant age and gender) were shown; two pictures depicted Chinese children, and two pictures depicted out-group members (White, Southeast Asian). Children were shown in Chinese/out-group pairs, either with novel objects (see Table 3 for the novel labels of the objects) or with a question.

Procedure

Parents completed a questionnaire to provide family background information, including income, racial composition of the home, domestic worker presence, and children’s native language. Children viewed the following two tasks on a laptop (see Gaither et al., 2014; Kinzler, Corriveau, & Harris, 2011).

Learning Preferences Task

Children completed eight learning preferences trials. In one set of four trials, a Chinese informant was paired with a White informant; the other four trials consisted of a different Chinese informant paired with a Southeast Asian informant. The right and left position of the informants and the order of trial sets were counterbalanced.

A Hong Kong Chinese experimenter presented a novel object to the participant and said in Cantonese, “In this video, two people will show you how to use this toy. Do you know what this toy does? I don’t know what this toy does, so let’s see what they think.” Children watched the informants silently perform different functions for the object. Next, the experimenter paused the video, repeated the actions, and asked, “Can you show me how you would use this toy?” Immediately following the fourth trial, participants were shown a still frame of both informants and were asked: (a) if they recognized differences between the two informants, other than shirt color (recognition); (b) if they liked one informant more than the other (preference); and (c) if they were more like one informant than the other (identification). The same three questions were posed again after the eighth trial.

Socializing Preferences Task

Next, children completed eight socializing preferences trials. In one set of four trials, a same-aged Chinese peer was presented with a White peer; in the other set of four trials, a different Chinese peer was paired with a Southeast Asian peer. Set order and peer position were counterbalanced.
Table 2
Objects Used and Functions Performed in the Learning Preferences Task

<table>
<thead>
<tr>
<th>Novel object</th>
<th>Function 1</th>
<th>Function 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black kneepad</td>
<td>Snap like a slingshot</td>
<td>Pat on head</td>
</tr>
<tr>
<td>Black plunger piece</td>
<td>Spin like a top</td>
<td>Squish in and out</td>
</tr>
<tr>
<td>Wooden juicer</td>
<td>Roll with hands</td>
<td>Slap on hands</td>
</tr>
<tr>
<td>Yellow plastic attachment</td>
<td>Look through</td>
<td>Hold to mouth andblow</td>
</tr>
<tr>
<td>Metal sprinkler</td>
<td>Use as an eye patch</td>
<td>Fly like a plane</td>
</tr>
<tr>
<td>White pool pipe</td>
<td>Listen with ear</td>
<td>Shake like a rattle</td>
</tr>
<tr>
<td>White garlic peeler</td>
<td>Twist it</td>
<td>Squeeze it up and down</td>
</tr>
<tr>
<td>Blue-and-white toilet topper</td>
<td>Spin end piece</td>
<td>Flap up and down</td>
</tr>
</tbody>
</table>

Within each set, participants viewed two types of trials. In the former, the two children were matched with two different novel objects. The experimenter described each child's preference, “This girl likes to play gung-gung. Gung-gung is her favorite toy. That girl likes to play sung-sung. Sung-sung is her favorite toy. Would you like to play gung-gung like this girl, or sung-sung, like that girl?” Participants then selected one of the objects. In the latter, participants viewed pictures of two children along with a question (e.g., “If you have a secret, who would you want to share it with?”). Following each trial type, participants were asked the same recognition, preference, and identification questions as in the learning preferences task.

Results

Learning Preferences

Scores on the learning preferences task represent the number of trials (maximum = 8) where the participant endorsed the label provided by the Chinese informant. Overall, children were above chance (4) in preferring to learn from the Chinese informant over the out-group informant (M = 4.27, SD = 1.45), t(211) = 2.75, p = .007, d = 0.38.

Table 1 displays the proportion of children's in-group learning preferences by kindergarten type, domestic worker presence, and out-group informant race, with comparisons to chance levels. Whereas children from local schools without a domestic worker at home displayed a preference for learning from a Chinese informant—especially when the comparison out-group informant was Southeast Asian—no such preference was found for children exposed to racial out-groups either through school or presence of a domestic worker.

To further examine children’s learning preferences, we ran a generalized linear mixed model (GLMM) analysis on children’s total in-group learning preferences with kindergarten type (local, international), domestic worker presence (yes, no), out-group race (White, Southeast Asian), participant age in months, and participant included as a random effect (see Table 4). Inspection of Table 4 revealed a main effect of out-group race, F(1,418) = 9.53, p = .002, and an Out-Group Race x Age interaction, F(1,418) = 10.17, p = .002.

To explore the Out-Group Race x Age interaction, we ran additional GLMM analyses separately for each level of out-group race. When the out-group informant was White, no main effects or interactions were found. In contrast, when the out-group informant was Southeast Asian, analyses indicated a main effect of age, F(1,208) = 6.37, p = .01, b = 0.02, SE (b) = 0.01, indicating an increased preference with age for the Chinese informant when the out-group informant was Southeast Asian.

Socializing Preferences

Scores on the socializing preferences task represent the number of trials (maximum = 8) on which

Table 3
Labels Used in the Socializing Preferences Task

<table>
<thead>
<tr>
<th>Object preference trial</th>
<th>Novel label 1</th>
<th>Novel label 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gung-gung</td>
<td>Sung-sung</td>
</tr>
<tr>
<td>2</td>
<td>Fung-fang</td>
<td>Yung-yung</td>
</tr>
<tr>
<td>3</td>
<td>Sung-sung</td>
<td>Gung-awan</td>
</tr>
<tr>
<td>4</td>
<td>Ga-tit</td>
<td>Ka-tit</td>
</tr>
</tbody>
</table>

Table 4
Results of General Linear Mixed Models Analysis on Children’s In-Group Learning Preferences

<table>
<thead>
<tr>
<th></th>
<th>b (SE)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.58 (.59)</td>
<td>[−0.58, 1.74]</td>
</tr>
<tr>
<td>Kindergarten type</td>
<td>0.08 (.12)</td>
<td>[−0.15, 0.31]</td>
</tr>
<tr>
<td>Domestic worker presence</td>
<td>0.01 (.12)</td>
<td>[−0.24, 0.22]</td>
</tr>
<tr>
<td>Out-group race</td>
<td>2.57 (.83)**</td>
<td>[0.93, 4.21]</td>
</tr>
<tr>
<td>Participant age (months)</td>
<td>0.03 (.01)</td>
<td>[−0.00, 0.05]</td>
</tr>
<tr>
<td>Out-group race x Age</td>
<td>−0.04 (.01)**</td>
<td>[−0.07, −0.02]</td>
</tr>
</tbody>
</table>

Note. Reference categories for kindergarten type, domestic worker presence, and out-group race are international, domestic worker present, and Southeast Asian, respectively. **p < .01.
participants chose to affiliate with the Chinese peer. Overall, children were above chance in preferring to socialize with a Chinese peer over an out-group peer \((M = 5.08, SD = 1.85), t(211) = 8.54, p < .001, d = 1.18\). Table 1 displays children’s socializing preferences in proportions by kindergarten type, domestic worker presence, and out-group race, with comparisons to chance levels. Regardless of exposure to racial out-groups, at school or home, children displayed a selective preference for affiliating with a Chinese child.

We ran a GLMM analysis on children’s total in-group socializing preferences with kindergarten type (local, international), domestic worker presence (yes, no), out-group race (White, Southeast Asian), participant age in months, and participant included as a random effect (see Table 5). Inspection of Table 5 revealed a main effect of age, \(F(1,419) = 4.65, p = .03\), and a trend for kindergarten type, \(F(1,419) = 3.37, p = .07\). Older children displayed stronger in-group socializing preferences than younger children. Children who attended a local kindergarten had stronger in-group socializing preferences than children from an international kindergarten.

### Social Group Recognition, Preference, and Identification

We next examined: (a) recognition of racial group differences; (b) preferences for any group member; and (c) identification with any group member. For each response type (recognition, preference, identification), we ran a binary logistic regression, with responses coded as a dichotomous dependent variable (1 = successful recognition, preference for, or identification with in-group member; 0 = no recognition, preference for, or identification with in-group member). Participant age, domestic worker presence (yes, no), kindergarten type (local, international), type of task (learning, socializing), and out-group race (White, Southeast Asian) were included as independent variables.

#### Recognition

On average, children recognized a difference 2.29 out of four times they were asked \((SD = 1.50)\), with 81% of children claiming that they recognized a difference at least once. Participants were also asked to justify their answers. They received one point if responses were related to the race or nationality consistent with the individuals’ appearance (e.g., saying “Chinese” for the in-group individual), natural physical features (e.g., skin color), or language (e.g., noting that the out-group member “speaks English,” whereas the in-group member “speaks Chinese”). They received zero points if they identified group-related differences but mislabeled the individual (e.g., noting that the Southeast Asian individual was “African”); noted superficial differences (e.g., “the way she smiles”); or answered “Don’t know.” Two coders blind to study predictions categorized the responses, with high interrater reliability (\(a = .83\)); disagreements were resolved through discussion. Of the 172 children who stated seeing a difference at least once, 146 children successfully justified their response by referring to group differences. These 146 children were above chance (= 2) in recognizing social group differences \((M = 2.21, SD = 1.09), t(145) = 2.28, p = .02, d = 0.38\).

A binary logistic regression revealed that the most parsimonious model included significant effects of task type, \(\beta = .98, SE = .15, p < .001\), kindergarten type, \(\beta = -.52, SE = .15, p = .001\), age, \(\beta = .04, SE = .01, p = .001\), and no significant interactions. The odds of recognizing social group differences in the socializing preferences task were 2.66 times greater than in the learning preferences task. The odds of recognizing social group differences were .60 times lower for children enrolled in international schools than in local schools. Additionally, the odds of successfully recognizing social group differences were 1.04 times higher for every 1-month change in age.

#### Preference

Next, we examined children’s responses when asked which of the two individuals (in-group, out-group) they preferred. Of the 208 children who responded to all four questions, participants...
showed a selective preference for the in-group member \((M = 2.48, SD = 1.17), t(207) = 5.86, p < .001, d = 0.81\).

Binary logistic regression showed that the most parsimonious model included the main effects of task type, \(\beta = .49, SE = .14, p = .001\), out-group race, \(\beta = .35, SE = .14, p = .02\), domestic worker presence, \(\beta = -.29, SE = .14, p = .04\), and no significant interactions. The odds of preferring the in-group member were 1.63 times greater in the socializing preferences task than in the learning preferences task. The odds of preferring the in-group member were 1.41 times greater when the out-group member was Southeast Asian compared to White. The odds of preferring the in-group member were .75 times lower when they were raised with a domestic worker at home.

Identification

Finally, we examined children’s social group identification responses. Of the 210 participants who responded to all four questions, children selectively identified with the in-group Chinese member \((M = 2.50, SD = 1.34), t(209) = 5.48, p < .001, d = 0.76\).

A binary logistic regression revealed only a main effect of task type, \(\beta = .70, SE = .14, p < .001\). The odds of identifying with the in-group member were 2.01 times greater in the socializing preferences task than in the learning preferences task.

Discussion

We investigated the relative impact of race, social status, and exposure to out-groups through home and school on the learning and socializing preferences of Hong Kong Chinese children. In support of our race hypothesis, by 48 months of age, children preferred to learn from and socialize with in-group members, and explicitly preferred and identified with in-group members. In particular, older children preferred to socialize with Chinese over out-group peers more than their younger counterparts, and showed a stronger in-group learning preference when the out-group comparison was Southeast Asian (lower-status) versus White (higher-status). Participants’ explicit preference for the in-group member was also stronger with a Southeast Asian individual. Lastly, children showed a weaker in-group preference if they were being raised with a domestic worker at home.

Our main findings—showing for the first time that Hong Kong Chinese children exhibited a robust in-group preference—are consistent with prior work with children from the dominant race in their society (Chen et al., 2013; Dunham et al., 2013; Gaither et al., 2014; but see Shutts et al., 2011). However, the specific out-group race mattered when children were choosing between individuals, in support of our status hypothesis. Children selectively preferred to learn from an in-group member over a lower-status (Southeast Asian) out-group member, consistent with past research highlighting children’s use of social group membership for learning preferences (Chen et al., 2011, 2013; Corriveau et al., 2013; Gaither et al., 2014). Thus, despite the important role domestic workers often play in their upbringing (Ip et al., 2008), children seem cognizant of group status differences. In contrast, children demonstrated no learning preference between a Chinese member and a higher-status (White) out-group member, suggesting an awareness of their in-group’s standing relative to specific out-groups. By age four, children demonstrate sensitivity to group wealth differences (Horwitz, Shutts, & Olson, 2014), judge wealthy peers to be more competent and popular (Shutts et al., 2016), and use race as a marker of social status (Olson et al., 2012; Shutts et al., 2016). Here, we extend these findings by comparing Hong Kong Chinese children’s preferences when presented with White and Southeast Asian as out-groups, while also exploring whether teacher and caregiver interactions sway these preferences.

Regarding our familiarity hypothesis, we had anticipated that familiarity with racial out-groups might impact children’s learning and socializing preferences. Although no effects were found, the presence of a domestic worker at home was associated with a decreased likelihood to express an explicit preference for an in-group over an out-group member. Thus, close contact with out-group members, even relatively low-status individuals, may affect children’s explicit in-group preferences, regardless of their implicit learning and socializing preferences (see also Baron & Banaji, 2006).

Finally, task type mattered. Children demonstrated better social group recognition, as well as stronger in-group preferences and identification, in the socializing preferences task, which involved same-age peers, as compared to the learning preferences task, which involved adults. These findings are consistent with other research highlighting the role of informant age and perceived expertise on selective learning and socializing judgments (e.g.,
Jaswal & Neely, 2006; Shutts et al., 2010; Taylor, Cartwright, & Bowden, 1991; VanderBorght & Jaswal, 2009). Furthermore, children may see adults as sources of factual information (e.g., Taylor et al., 1991) compared to peers who are more persuasive regarding toy preferences (e.g., L. Birch, 1980; Hendy & Raudenbush, 2000). Our data therefore suggest that children are more sensitive to an individual’s race among their own age group. Future research should examine children’s learning and socializing preferences among both adults and same-aged peers to further understand the potential impact of out-group status and familiarity on these preferences.

Recently, scholars have demonstrated that studies published in the majority of prominent developmental psychology journals primarily involve children in European countries and the United States, with less than 10% of papers featuring participants from other countries, including only 4.37% from Asia (Nielsen, Haun, Kärnner, & Legare, 2017). By focusing on a relatively understudied population—children who belong to the dominant racial group within Hong Kong—we offer initial insight into the universal importance of group status (and, to a lesser extent, familiarity) on intergroup learning and socializing preferences in early childhood. Moving forward, the recruitment of larger and more balanced samples across the various target participant groups and the usage of stimuli consistent with the type of out-group exposure children have in their daily lives are needed to understand how specific experiences with out-groups shape the development of children’s learning and socializing preferences. As societies become increasingly diverse, investigating the intersections of race, status, and other social dimensions is critical to gaining insight into the impact of cross-group contact and membership to multiple social categories on the judgments and preferences of young children.

References