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Contrasting Lay Theories of Polyculturalism and Multiculturalism: Associations With Essentialist Beliefs of Race in Six Asian Cultural Groups

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Abstract

Multiculturalism and polyculturalism are two lay theories of culture that have been associated with some similar intergroup attitudes and behaviors. But other than the studies of Rosenthal and Levy in the United States, there have been no studies that directly distinguish between these two lay theories. In this study, we use confirmatory factor analysis procedures to show that multiculturalism and polyculturalism represent two distinct latent constructs among our 1,730 participants in six Asian cultural groups (China, Hong Kong, Indonesia, Macau, Malaysia, the Philippines). Moreover, we show that essentializing race is associated with endorsement

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of multiculturalism (but not polyculturalism) in five cultural groups (except Hong Kong). The results provide strong cross-cultural empirical evidence for the distinction between the two lay theories and, more importantly, point to aspects of the lay theory of multiculturalism that relate to why it is sometimes associated with stronger stereotyping and prejudice toward minority cultural groups.

Lay Theories of Culture: Multiculturalism and Polyculturalism

Lay theories aid individuals in constructing meaning, forming predictions, and guiding decisions they make about our social worlds (Hong, Levy, & Chiu, 2001; Levy, Chiu, & Hong, 2006). Different lay theories have been studied, including lay theories of culture and of race that refer to beliefs regarding the nature of culture and/or race, cultural and/or racial groups, and how these are related to each other. At least two lay beliefs about cultural groups have been proposed: multiculturalism and polyculturalism. Both lay theories have been associated with some positive intergroup attitudes and behaviors (Bernardo, Rosenthal, & Levy, 2013; Pedersen, Paradies, & Barndon, 2015; Richeson & Nussbaum, 2004; Rosenthal & Levy, 2012; Ryan, Casas, & Thompson, 2010), but multiculturalism has also been associated with stronger ethnic stereotyping and bias (Wittig & Molina, 2000; Wolsko, Park, Judd, & Wittenbrink, 2000). In the current study, we provide further evidence for the distinction between polyculturalism and multiculturalism by first testing the assumption that the two are distinct latent factors. Then, we inquired into how multiculturalism and polyculturalism relate to lay theories of race. Although race is an arbitrary social construct that holds different meanings across different historical constructs and across sociocultural groups (Smedley & Smedley, 2005; Zuckerman, 1990), there are people who believe in the lay theory that races are fixed concepts with biological or genetic essences. We test the hypothesis that the tendency to endorse this lay theory relates differently to multiculturalism and polyculturalism.

The lay theory of multiculturalism refers to beliefs associated with the importance of being aware of, sensitive to, and tolerant of cultural differences

(Ryan et al., 2010; Wolsko, Park, & Judd, 2006). This lay belief refers to ideas assumed in the multicultural ideologies introduced in some countries with large multiethnic migrant populations and has been adopted in different official and informal forms in different multiethnic societies. This multicultural ideology and lay theory assumes that different cultural groups have unique histories, customs, traditions, and values that members of the group should be allowed to express and uphold and that should be respected by other cultural groups. Some research has shown that belief in multiculturalism is associated with openness to intergroup contact and support for prodiversity views related to affirmative action and immigration policies (Rosenthal & Levy, 2012; Wolsko et al., 2006), less ethnocentrism and in-group bias (Richeson & Nussbaum, 2004; Vorauer, Gagnon, & Sasaki, 2009), and interest and appreciation of diversity (Rosenthal & Levy, 2012). But other research has shown that multiculturalism is associated with stronger racial or ethnic stereotyping and bias (Chao, Kung, & Yao, 2015; Wittig & Molina, 2000; Wolsko et al., 2000).

Recently, the lay theory of polyculturalism was proposed as representing a different but related set of beliefs regarding the variations among cultural groups. In particular, the lay theory emphasizes how different cultural groups are connected with and are influencing each other (Rosenthal & Levy, 2010, 2013). The lay theory derives from historical research that shows how different cultures and races have interacted with each other throughout human history through migration, trade, conquest, and other forms of intercultural contact (Kelley, 1999; Prashad, 2001, 2003) and highlights cultural connections instead of cultural differences (Rosenthal & Levy, 2010). Research shows that belief in polyculturalism is associated with interest and appreciation of diversity, comfort with intergroup differences, willingness for intergroup contact (Bernardo et al., 2013; Rosenthal & Levy, 2010, 2012) and even in less sexism (Rosenthal, Levy, & Moss, 2012) and sexual prejudice (Bernardo, 2013; Rosenthal, Levy, & Militano, 2014).

Because the two intergroup lay theories have some similar intergroup consequences, it is important to show that they are distinct sets of lay beliefs. Rosenthal and Levy (2012) addressed this concern in four related studies (two involved university student samples; two involved adult community samples) by using exploratory factor analysis to show that multiculturalism and polyculturalism represent distinct factors (and that both are distinct from other lay theories like colorblindness and assimilation). Across all four studies, exploratory factor analysis indicated that the items for multiculturalism and polyculturalism load into distinct factors. However, other than their studies, there is no other study that directly tests differences between the two lay theories.

Essentializing Race: A Distinguishing Factor?

The concept of race is a social construction that has different meanings for different people in different societies and historical contexts (Smedley & Smedley, 2005; Zuckerman, 1990). But there are people who believe that there is a biological basis of race. This belief, which is referred to as the genetic lay theory of race or essentialist theory of race, assumes that race is a fixed biological construct that has consequences on the traits, abilities, and internal dispositions of the individuals who belong to the race (Chao, Hong, & Chiu, 2013; No et al., 2008). This lay theory, which is also extended to essentializing cultural groups (Chao & Kung, 2015; Haslam, Bastian, Bain, & Kashima, 2006; Tsukamoto, Holland, Haslam, Karasawa, & Kashima, 2015), is rooted in the work on psychological essentialism (Medin, 1989), genetic determinism (Keller, 2005), and entity theory of psychological traits (Hong et al., 2003) that highlight assumptions people have about similarities in physical properties as a basis to make conclusions about the nature or essence of people or groups. These essences are assumed to be fixed and not subject to change. As applied to notions of race, essentialist theories of race assume biological attributes such as color of skin as indicative of fixed psychological characteristics and outcomes (Chao et al., 2015; No et al., 2008). Beliefs that essentialize race correlate with stereotyping and have causal links with prejudice and in-group bias (Jayaratne et al., 2006; Keller, 2005; Tsukamoto, Enright, & Karasawa, 2013).

Because race is a social construct, the way people understand and think about race may also relate to how they construct the concept of culture. For example, notions of race and culture may be confounded when people from different cultures are thought to represent different races. It is possible that in such situations, people's lay theories of culture may also incorporate assumptions about race. But because lay theories contain propositions that are coherently integrated into a causal and/or meanings system, lay theories would include only related concepts that are consistent with the core beliefs in the lay theory (Hirschfeld, 2001; Hong et al., 2001). In this regard, we propose that essentializing race is more consistent with the multiculturalist lay theory and less so with polyculturalist lay theory. Most definitions of multiculturalist lay beliefs do not explicitly refer to the biological or genetic basis of cultural groups (Richeson & Nussbaum, 2004; Wolsko et al., 2006), but we propose that the belief that differences among cultural groups should be acknowledged and respected may partly grounded on some assumption that the differences are not changeable and/or are defined by some fixed essential qualities. We do not propose that the multiculturalist belief necessarily assumes the fixed essential and/or genetic aspect of race; instead, we propose

that essentializing race is not inconsistent with multiculturalism and that some people who endorse multiculturalism may also hold some essentialist beliefs about race. However, the polyculturalist belief that cultures have been interacting and mutually influencing each other throughout history implies the idea that cultural and racial groups have been mixing through most of history. Such culture and racial mixing seems less consistent with the idea that race is a fixed concept. Again, we do not propose that polyculturalism necessarily assumes that there is no genetic aspect of race; instead, we propose that essentializing race is less consistent with the assumptions of polyculturalism.

In this study, we test the hypothesis that essentialist beliefs about race are a factor that distinguishes between multiculturalist and polyculturalist lay theories. We test this hypothesis in six cultural groups in Asia. Most cross-cultural research typically include only East Asian samples, so we attempted to broaden our cross-cultural Asian sample. Three of the sampled groups are geographically East Asian (China, Hong Kong, and Macau) and ethnically Han Chinese people who speak variants of the Han language, and the other three are geographically Southeast Asian (Indonesia, Malaysia, and the Philippines) and belong to ethnic groups that speak various Austronesian languages. More pertinent to the topic of our study, the cultural groups come from countries or cities that were historically colonized or administered by a foreign state of a different culture and presumed race, with the exception of China. In particular, Hong Kong and Malaysia were both colonies of Britain, Indonesia was a Dutch colony, Macau was administered by the Portuguese, and the Philippines was a colony of Spain then the United States. The colonial experience creates a historical and social context within which cultural contact can be socially constructed; moreover, in varying degrees the former colonies maintain some presence in contemporary postcolonial societies. Although China does not have a colonial history, the Chinese participants in our study are currently studying in a foreign city (Macau) and thus have some experience of cross-cultural contact. We assume that all cultural groups in our study have pertinent social experiences that allow them to consider concepts and assumptions related to either polyculturalism, multiculturalism, or essentialist theories of race.

To test our hypothesis that essentializing race distinguishes between multiculturalism and polyculturalism, we gathered self-reports on the participants' beliefs related to the three lay theories of culture and race. We first tested whether multiculturalism, polyculturalism, and essentialism were distinct latent constructs in each of the six cultural groups. Unlike the earlier similar study of Rosenthal and Levy (2012) that used exploratory factor analysis, we used confirmatory factor analysis (CFA) to test the distinctiveness of

Table 1. Demographic Statistics for Participants From Each Cultural Group.

	n	Age		% female	% male
		M	SD		
China	217	19.22	1.27	64.1	35.9
Hong Kong	198	20.19	2.35	37.9	62.1
Indonesia	513	19.42	1.46	56.8	43.2
Macau	218	19.34	1.65	55.5	44.5
Malaysia	222	20.53	3.19	82.9	17.1
Philippines	362	18.69	1.23	46.7	53.3

the three lay theories. CFA is a stricter test because the procedure imposes a priori constraints on the models that are not required in exploratory factor analysis. We then examined how belief in essentializing race related to beliefs related to the multiculturalism and polyculturalism for each of the six cultural groups first by looking at the covariances of the three factors in the CFA, then by conducting regression analysis.

Method

Participants

A total of 1,730 university students from six Asian cultural groups—China, Hong Kong, Indonesia, Macau, Malaysia, and the Philippines—participated in the study. The demographic details relevant to each country are included in Table 1. The table shows a much larger sample from Indonesia compared with the other countries, but because we employed within-country analyses, the different samples sizes were not a concern. Table 1 also shows that there were more female respondents in the samples from China and Malaysia and more male respondents from Hong Kong. Preliminary analysis showed that gender was not significantly correlated with any of the three lay theories, and so this factor was not considered in all further analysis.

Instruments

The Lay Theories of Culture Scale (Rosenthal & Levy, 2010) includes measures of polyculturalism (five items; e.g., "Different cultural groups impact one another, even if members of those cultural groups are not completely aware of the impact") and multiculturalism (five items; e.g., "All cultures have their own distinct traditions and perspectives"). To measure essentializing race, we used the Lay Theory of Race Scale (No et al., 2008), which includes four items (e.g.,

"To large extent, a person's race biologically determines his or her abilities and traits"). Both scales require responses on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*).

The participants from Hong Kong and the Philippines completed the measures in English, as this was the medium of instruction in their universities. Those from China, Indonesia, Macau, and Malaysia completed questionnaires translated to the local languages. For China and Macau, a bilingual student translated the questionnaires into Chinese (written in traditional orthography) and another bilingual student reviewed the translations. For Malaysia and Indonesia, professional translators translated the original scales to Bahasa Malaysia and Bahasa Indonesia, respectively; bilingual psychologists from each country reviewed the translations. Table 2 shows that almost all scales have adequate internal consistency, except for the multiculturalism scale in Indonesia, where the Cronbach's alpha was less than .60. Several other scales also have Cronbach's alpha below .70, and generally the internal consistency coefficients were lower than those found in earlier studies (Rosenthal & Levy, 2012; Rosenthal, Levy, Katser, & Bazile, 2015), even those found with Asian samples (Bernardo et al., 2013).

Procedure

Participants were recruited from different universities using convenience sampling. Participants from China and Macau were recruited using a university research participants pool and answered the questionnaires online. The participants from all other cultural groups were recruited through various classes and answered paper questionnaires. All participants were first informed about the nature of the study, and only those who gave their informed consent were included in the samples.

Results

The descriptive statistics for each of the six cultural groups are summarized in Table 2. We note that, generally, participants in all groups tend to endorse the two intergroup lay theories of polyculturalism and multiculturalism, as indicated by mean scores that are higher than the midpoint of the 6-point scale, consistent with earlier studies mostly with samples from the United States (Rosenthal & Levy, 2012; Rosenthal et al., 2015). Interestingly, in the three East Asian cultural groups (China, Hong Kong, and Macau) there was no difference between the polyculturalism and multiculturalism scores; but for the three Southeast Asian cultural groups, multiculturalism was significantly higher than polyculturalism—Indonesia: $F(1, 512) = 111.42$, partial $\eta^2 = .18$, p .0001; Malaysia: $F(1, 221) = 34.64.42$, partial $\eta^2 = .14$, p .0001;

Table 2. Descriptive Statistics and Correlations of Key Variables for Each Cultural Group.

	Cronbach's α	M	SD	2	3
China					
1. Polyculturalism	.69	4.66	.58	.38**	.08
2. Multiculturalism	.65	4.65	.59		.31**
3. Essentialist beliefs of race	.73	3.61	.84		—
Hong Kong					
1. Polyculturalism	.81	4.53	.72	.54**	.07
2. Multiculturalism	.65	4.52	.63		.14*
3. Essentialist beliefs of race	.65	3.74	.82		—
Indonesia					
1. Polyculturalism	.69	4.65	.69	.23**	.04
2. Multiculturalism	.55	5.00	.50		.16**
3. Essentialist beliefs of race	.65	3.97	.88		—
Macau					
1. Polyculturalism	.74	4.48	.64	.49**	.10
2. Multiculturalism	.62	4.56	.59		.29**
3. Essentialist beliefs of race	.67	3.72	.78		—
Malaysia					
1. Polyculturalism	.79	4.36	.76	.69*	.30**
2. Multiculturalism	.80	4.59	.74		.34**
3. Essentialist beliefs of race	.74	4.31	.75		—
Philippines					
1. Polyculturalism	.78	4.88	.62	.40**	−.06
2. Multiculturalism	.70	5.07	.58		.15**
3. Essentialist beliefs of race	.68	3.70	.89		—

**p < .01. ***p < .001.

Philippines: $F(1, 361) = 31.27$, partial $\eta^2 = .08$, p .0001. However, the participants where more equivocal about essentialism, with only the participants from Malaysia showing an average agreement score that was higher than the midpoint. We caution against directly comparing the means across the countries as there is yet no evidence on the metric equivalence of the scale across these different country samples.

Confirmatory Factor Analyses

The first objective of the study was to verify whether the two intergroup lay theories of polyculturalism and multiculturalism are distinct forms of lay

beliefs for the participants in the six groups, or whether they see these beliefs as being just one and the same construct. To address this objective, CFAs were conducted to test three models involving polyculturalism, multiculturalism, and essentialism. Model 1 is a one-factor model where all 14 items involving lay theories of culture and race form one latent factor. Model 2 is the two-factor model where the 10 items under multiculturalism and polyculturalism comprise one factor representing lay theories of culture and the four items under essentialism comprise a second factor representing lay theory of race. Finally, Model 3 is the three-factor model where multiculturalism, polyculturalism, and essentialism are three latent factors (the first two with five indicators/items each and the last with four). Table 3 summarizes the fit indices for each model for each sample. Across the six cultural groups, the fit indices reveal that the three-factor model had a better fit with the data compared with the two other models.

The second objective of the study was to verify whether essentialist belief of race is a factor that distinguishes the two lay theories of culture. To partly address this aim, we examined the covariances between the three latent factors in the six cultural groups. As shown in Table 4, not surprisingly, the covariance between polyculturalism and multiculturalism was significant in all cultural groups. More importantly, the covariance between multiculturalism and essentialism was significant in all cultural groups, but the covariance between polyculturalism and essentialism was significant only in the Malaysian sample.

Multiple Regression Analysis

To further verify whether essentialist belief of race is a factor that distinguishes the two lay theories of culture, multiple regression analyses were conducted for each country sample. The regression analysis allowed us to examine the hypotheses independent of the assessment of the measurement model, which was an integral part of CFA. The regression analysis also allowed us to examine essentialism's relationship to polyculturalism and multiculturalism while the relationship between the last two is unconstrained, unlike in CFA. In each regression analysis, essentialist belief scores were regressed to polyculturalism and multiculturalism. Before actually conducting the regression analysis, we inspected the intercorrelations among the scales (see Table 2) and found no evidence of multicollinearity in any of the country samples.

The results of the regression analyses summarized in Table 5 generally reflect the pattern of the covariances in Table 4. Except for Hong Kong, the results consistently indicate that multiculturalism predicts essentialist beliefs of race in China, Indonesia, Macau, Malaysia, and the Philippines.

Table 3. Fit Indices for the One-Factor, Two-Factor, and Three-Factor Model in Six Cultural Groups.

| | | | | | | Fit indices | | | | |
| | | | | | | | | | 90% CI | |
	χ^2	df	*p*	χ^2/df	CFI	TLI	IFI	RMSEA	LL	UL
China										
Model 1	339.62	77	.0001	4.41	.54	.46	.55	.13	.11	.14
Model 2	189.66	76	.0001	2.496	.80	.76	.81	.08	.07	.10
Model 3	103.01	73	.012	1.41	.95	.94	.95	.04	.02	.06
Hong Kong										
Model 1	338.81	77	.0001	4.40	.63	.56	63	.13	.12	.15
Model 2	230.34	76	.0001	3.03	.78	.74	.78	.10	.09	.12
Model 3	129.93	71	.0001	1.77	.92	.90	.92	.06	.04	.18
Indonesia										
Model 1	626.11	77	.0001	8.13	.46	.36	.47	.12	.11	.13
Model 2	352.66	76	.0001	4.64	.73	.67	.73	.08	.07	.09
Model 3	142.60	72	.0001	1.98	.93	.91	.93	.04	.03	.05
Macau										
Model 1	319.67	77	.0001	4.15	.63	.57	.64	.12	.11	.13
Model 2	206.36	76	.0001	2.72	.80	.76	.81	.09	.07	.10
Model 3	130.68	73	.0001	1.79	.91	.89	.92	.06	.04	.08
Malaysia										
Model 1	329.95	77	.0001	4.29	.77	.72	.77	.12	.11	.14
Model 2	205.84	76	.0001	2.71	.88	.86	.88	.09	.07	.10
Model 3	157.24	73	.0001	2.15	.92	.90	.92	.07	.06	.09
Philippines										
Model 1	537.23	77	.0001	6.98	.58	.49	.58	.13	.12	.14
Model 2	313.20	76	.0001	4.12	.78	.74	.79	.09	.08	.10
Model 3	119.58	73	.0001	1.64	.96	.95	.96	.04	.03	.06

Note. Model 1 = one factor of beliefs about culture race and race; Model 2 = two factors of beliefs about culture and beliefs about race; Model 3 = three factors of polyculturalism, multiculturalism, and essentialism. CFI = comparative fit index; TLI = Tucker–Lewis index; IFI = incremental fit index; RMSEA = root mean square error approximation; CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

The covariance between essentialism and multiculturalism in Hong Kong was significant in the CFA, probably because the high covariance between multiculturalism and polyculturalism was constrained in the model. Note, however, that there was a positive trend ($p = .08$) in the relationship between multiculturalism and essentialism in Hong Kong.

Table 4. Covariances Among Three Factors in Six Cultural Groups.

	China	Hong Kong	Indonesia	Macau	Malaysia	Philippines
Polyculturalism–multiculturalism	.14***	.69***	.04**	.27***	.42***	.18***
Polyculturalism–essentialism	.02	.01	.01	.03	.22***	−.02
Multiculturalism–essentialism	.14**	.21*	.08**	.12**	.16***	.08*

*p < .05. **p < .01. ***p < .001.

However, polyculturalism was not associated with essentialism in all cultural groups, except for the Philippines where polyculturalism was negatively associated with essentialism. Again, these results generally reflect the pattern of the covariances, except in two aspects. Polyculturalism was not related to essentialism in the regression analysis for Malaysia, but the covariance between polyculturalism and essentialism was significant in Malaysia possibly because the moderately high covariance between multiculturalism and polyculturalism was constrained in the model. More interestingly, the negative relationship between polyculturalism and essentialism in the Philippines was not found in the covariances. Although this result was not hypothesized, it is in agreement with the notion that polyculturalism is more inconsistent with essentialism. Overall, these results provide generally strong support for the hypothesis the essentialist beliefs about race is a factor that distinguishes between the two lay theories of culture.

Discussion

The current study was designed to further clarify the distinction between two intergroup lay theories—multiculturalism and polyculturalism. Our data from six Asian cultures contribute to this goal first by showing that the two lay theories are unique latent factors representing two sets of beliefs regarding the nature of culture and cultural groups. The only previous evidence of this type was derived from exploratory factor analysis of data samples from the United States (Rosenthal & Levy, 2012), and our results build on those results by replicating the empirical contrast between the two lay theories in six Asian cultural groups. Moreover, we provide stronger evidence for this contrast by using CFA to test the uniqueness of the different factors; CFA provides a stricter test of the contrast between the two lay theories.

Our results further contribute toward clarifying the distinction between multiculturalism and polyculturalism by showing that essentialist beliefs

Table 5. Regression Analyses of Predictors of Essentializing Race in Six Cultural Groups.

	β polyculturalism	β multiculturalism	R^2	F	df	p
China	−.05	.33*	.10	11.60	2, 214	.0001
Hong Kong	−.01	.15†	.02	2.07	2, 195	.13
Indonesia	.00	.16*	.03	7.05	2, 510	.001
Macau	−.05	.32*	.08	10.27	2, 215	.0001
Malaysia	.13	.26*	.13	15.60	2, 219	.0001
Philippines	−.13*	.20*	.04	6.73	2, 359	.001

†p = .08. *p < .05.

about race were associated with multiculturalism but not with polyculturalism. The results of the covariances in the CFA of all six Asian cultural groups and the regression analysis in five out of six Asian cultural groups (China, Indonesia, Macau, Malaysia, the Philippines) point to a considerable alignment in the evidence. For the sixth cultural group, Hong Kong, the results were mixed—The covariance was consistent with the hypothesis, but there was only a trend in the regression analysis. There may be various reasons why the results from Hong Kong are different, and we will consider some possible reasons later in the discussion when we look at other variations across cultures.

But we first discuss why essentialist beliefs about race would be associated with multiculturalism but not polyculturalism. In the introduction, we suggested that believing that racial groups have fixed essential qualities may be aligned with multiculturalism's notion that there are differences among cultural groups that should be acknowledged and respected instead of expecting cultural groups to assimilate into the dominant cultural norms and practices. This multiculturalist belief may be, in some people, based on an implicit assumption that there is some fundamental and unchangeable aspect of cultural qualities associated with the genetic aspect of race. Indeed, essentializing social groups tends to set up a "social categorization mindset" (Chao et al., 2013) in people wherein they tend to see different groups as separate categories with no overlapping qualities (No et al., 2008). These explanations would also suggest the belief about the essential nature of race is inconsistent with the polyculturalist notion that cultures have been interacting and mutually influencing each other throughout history. This notion of interacting cultures seems irrelevant to the idea that race is a fixed biological construct. Indeed, belief in the notion of polyculturalism might actually make one much less likely to think that the concept of race is real or that race is a fixed

biological concept. Note that a negative relationship between polyculturalism and essentialist beliefs of race was found in only one cultural group (the Philippines), so we cannot infer that the polyculturalist lay theory is contrary to essentializing race. Instead, our results indicate that essentializing race does not seem to be a concept that is aligned with the assumptions of the lay theory of polyculturalism.

We should keep in mind that essentialist beliefs about race tends to be associated with stronger endorsement of racial and cultural stereotypes (Tadmor, Chao, Hong, & Polzer, 2013), more negative attitudes toward out-groups (Keller, 2005), and more prejudice toward racial minority groups (Jayaratne et al., 2006; Williams & Eberhardt, 2008), among other negative intergroup cognitions and behaviors. And in this regard, our results seem to converge with some earlier discourses regarding the differences between polyculturalism and multiculturalism. In a study that jointly investigated how multiculturalism, polyculturalism, and colorblindness on various intergroup attitudes, multiculturalism and polyculturalism were associated with the intergroup variables (e.g., interest in and appreciation of diversity) in similar ways (Rosenthal & Levy, 2012). However, in the same study, polyculturalism was positively associated with willingness for intergroup contact, but multi-culturalism was negatively associated with the same. That result, as well as our result, can be understood from the perspective of some critics of multicul-turalism (e.g., Prashad, 2003) who argue that multiculturalism's focus on dif-ferences among cultures may be used to legitimize racism and anti-migrant nationalism; cultural differences may be used to replace biological explana-tions for racist ideas. These criticisms find some empirical support in studies that show how multicultural programs that highlight important differences between cultural groups (even when presented positively) lead to stronger racial stereotyping and bias (Chao et al., 2013; Wittig & Molina, 2000; Wolsko et al., 2000). We should note that polyculturalism also acknowledges cultural differences (Prashad, 2001; Rosenthal & Levy, 2013) but does not emphasize this in the same way that multiculturalism does. Instead, polycul-turalism emphasizes the mutual influences among cultures and, as such, also points to similarities among cultures. Note, however, that focusing on such similarities may also have negative intergroup consequences (Gabarrot, Falomir-Pichastor, & Mugny, 2009; Pedersen & Hartley, 2015; Pedersen & Thomas, 2013), which may suggest some other facet that could distinguish polyculturalism and multiculturalism that could be explored in future research.

We should note that we found the association between the beliefs of essentializing race and multiculturalism in five cultural groups (and a statis-tical trend in the sixth group) that varied in terms of major ethnic

and linguistic characteristics. The different cultural groups all come from societies with varying degrees of historical and contemporary intercultural contact. Note that we refrained from making direct comparisons among the cultural groups because we do not have evidence for the metric or scalar equivalence of the various scales used in the study. Thus, although it was meaningful to compare how the scale scores correlated within each of the cultural groups, it may not have been meaningful to compare means across the groups. Future research that establishes the equivalence of the various scales measure lay theories of culture and race should be undertaken. Establishing metric equivalence would allow for direct comparisons of the levels of endorsement of the multicultural and polycultural lay theories of culture, and also of essentializing race.

But even without establishing the metric equivalence, the data allow us to point to some cultural differences regarding the relationships among the variables. For example, we earlier observed that multiculturalism was more strongly endorsed than polyculturalism in the three Southeast Asian groups, but there was no difference in level of endorsement of the two lay theories in the three East Asian (Chinese) groups. What cultural-level factors might influence this trend? Consider that some countries like Indonesia have government policy that promote pluralism and diversity (Yuniarto, 2012); Indonesia's national ideology of Pancasila has a national motto "*Bhinneka Tunggal Ika*," which literally translates in English as "many, yet one." Malaysia also has a multiethnic policy that was promulgated to manage interethnic group conflict in Malaysia society (Noor & Leong, 2013). Does the multiculturalist belief implied in these government policies promote higher endorsement of multiculturalism than polyculturalism? There is no similar strong policy on multiculturalism or multiethnic diversity in the Philippines, but the Philippines has a long colonial history being occupied by Spain, the United States, and Japan over 300 years. This colonial history still has enduring expressions in contemporary Philippine society; could these visible imprints of a foreign colonial culture engender stronger endorsement of multiculturalism among Filipino participants? But both Hong Kong and Macau were also colonized (by the British and the Portuguese, respectively) for centuries, but multiculturalism was not endorsed more strongly in these two former colonies. These speculative interpretations could be studied more systematically in future research.

Other cultural differences relate to the main results regarding the role of essentialism in distinguishing between multiculturalism and polyculturalism. Evidence for this role was mixed and weaker in Hong Kong than in all the other cultural groups. The covariance between multiculturalism and polyculturalism was also highest in Hong Kong. We wonder if current socio-political

discourses in Hong Kong that problematize the social and cultural identity of Hong Kong Chinese vis-à-vis Mainland Chinese maybe complicating the participants ideas about multiculturalism and polyculturalism. Some young people in Hong Kong (who are of the same age and educational profile as our sample) assert that Hong Kong people are "not Chinese" even as they are ethnically Chinese. There is a strong civil society discourse that resists policies that seek to strongly link Hong Kong national identity to Chinese identity (Tse, 2014). This resistance could also be seen as strongly implying a social constructionist view of race, which may be a relevant concept in making sense of another cultural difference. Essentialism was negatively associated with polyculturalism in the Philippines sample; thus, for the Filipino participants the belief that cultures are mutually interacting and influencing each other seems to be opposed to the idea that race has a fixed genetic basis. Could this negative relationship be interpreted as indicating that polyculturalism is more consistent with a more socially constructed view of race, at least in the Philippine group? These interesting possibilities need to be explored in future research that inquire into more social constructivist lay theories of race and how such views relate to polyculturalism and multiculturalism.

The socially constructed notions of race may be an important point to consider particularly as the tendency to essentialize social groups seems to be a "natural" although complex tendency in people. The tendency to essentialize groups develops in children at a very young age (Hirschfeld, 1995, 2001; Quintana, 1999). The development of essentialist thinking derives from basic conceptual development processes (Astuti, Solomon, Carey, Ingold, & Miller, 2004; Gelman, 2003) but is also is supported by cultural socialization processes (Rhodes, Leslie, & Tworek, 2012). Are essentialist genetic beliefs about race and social constructivist notions of race supported by social processes in different ways in different cultures? What cultural processes influence the development of these ideas, and how do they influence the endorsement of polyculturalism and multiculturalism? What is the role of the different types and qualities of intercultural contact and relations?

There are more provocative questions that go beyond the scope of our current inquiry, which focused on only one factor (essentializing race) to show the distinction between the two lay theories. Future research should consider a wider range of factors that could further clarify the differences and similarities between the multiculturalism and polyculturalism, and the preceding discussion points so potential lines of inquiry. The limited scope of our study notwithstanding, we believe that our cross-cultural research provides consistent and unequivocal evidence for an important distinguishing element that could explain why belief in multiculturalism and polyculturalism sometimes result in different intergroup attitudes and behaviors.

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Declaration of Conflicting Interests

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