

# Interethnic bridging social capital and the significance of ethnocentric interethnic interaction within Malaysian universities

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## Abstract

This article explores the possible theoretical relationships of ethnocentrism (independent variable) and interethnic interaction (mediating variable) with interethnic bridging social capital (IBSC) (dependent variable). Interethnic bridging social capital is extremely noticeable that there is a lack of such investigation in specifically Malaysian public universities. In an attempt to clarify the current situation, a survey questionnaire was conducted with 343 undergraduate students from the three main ethnic groups. The findings reveal that not only ethnocentrism can effect directly and negatively on IBSC, but also its impact can be partially mediated through interethnic interaction as well. Overall, this article contributes to our understanding of how negative attitudes towards outsiders inhibit trust, reciprocity and cooperation in heterogeneous communities.

**Keywords:** *ethnocentrism, interethnic interaction, interethnic bridging social capital, Malaysia*

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## Introduction

Although interethnic interaction between university students are responsible for significant positive learning outcomes, many colleges and universities across the world have failed to actively encourage their students to interact across ethnic backgrounds (Robinson 2012). Malaysia faces much the same problem. The lack of students' interethnic interaction in Malaysian multiethnic universities is connected to the failure of universities to take action and encourage or enhance ethnic integration among different students (Kamaruzaman 2006; Sidek 2007 as cited in Mustapha et al. 2009). While in theory a university should be full of opportunities for positive interethnic actions to take place, in practice they are often full of opportunities for acts of intolerance, ethnocentrism and segregation to occur, with all these negative phenomena increasing in frequency on campus grounds (Segawa 2007).

The background for such a mindset, and the relevance to the entire problematic issue, relies on the simple fact that Malaysian citizens prefer to identify self in terms of ethnic identity (Haque 2003; Merdeka Center 2006; Tamam, Idris, and Tien 2011) rather than national identity. These attitudes threaten positive relations with other individuals and groups, all through the lack of bridging social capital in heterogeneous societies. Bridging social capital, to Robert Putnam (2000), is a prerequisite to the successful formation of a collective identity as a nation, relying on accumulating social solidarity and trust via networking.

Bridging social capital among different students is vital to the proper functioning of academic institutions. The situation is more complicated in multiethnic universities and more emphasis should be placed on *interethnic* bridging social capital. As the student body in most universities in Malaysia is becoming more diverse (Tamam 2012), interethnic bridging social capital among students in multiethnic universities in this country is increasingly relevant but still understudied (Tamam 2013). Therefore, the present study aims to answer the following research questions in order to explore to what extent interethnic bridging social capital in multiethnic universities have been affected by interethnic interaction and ethnocentric attitudes of students:

1. What is the relationship between ethnocentrism and local students' interethnic bridging social capital in Malaysian multiethnic universities?
2. Does interethnic interaction mediate the relationship between ethnocentrism and local students' interethnic bridging social capital in Malaysian multiethnic universities?

## **Background**

### **Interethnic Bridging Social Capital (IBSC)**

Interethnic interaction is a form of social capital that generates benefits in the community as a whole (Goddard 2003). Considering a paucity of empirical studies on social capital in Malaysia (Mura and Tavakoli 2014), this prosperous Southeast Asian country with a diverse population composition needs to place a greater emphasis on interethnic bridging social capital.

Interethnic bridging social capital is defined by Tamam (2012) as a necessity for community development enabling people to draw on resources from those who are ethnically different from themselves. The significance of interethnic bridging social capital for students is the educational benefits that derive from ethnic ties and interconnections. Interaction and socialization among students of various ethnic groups create a positive environment which leads students to cognitive and social development (Arellano, Torres, and Valentine 2009). Bowman (2011) likewise points out that interaction across ethnic groups and discussion on ethnic-related issues can be fundamental for the growth of students intellectually and as personalities. Although, strong interethnic bridging social capital enriches multicultural universities with high level of trust, reciprocity and cooperation, Tamam (2013) claimed that there is a significant lack of studies regarding this matter among Malaysian students in multiethnic universities (Tamam 2013).

Historically, for many generations now, Malaysia has been a plural country consisting of three main ethnic groups, such as Malays, Chinese and Indians (Andaya and Andaya 1982). From the historical evidence Malaysian ethnic diversity is an ancient legacy of mostly harmonious relations, but the presence of the largest non-indigenous populations can be attributed to the massive influx of Chinese and Indian immigrant laborers in the country by colonial rulers to meet the labor needs of their colony (Tamam 2009). Each ethnicity in Malaysia has its own unique culture and heritage, including but not limited to their preferred languages, belief systems, traditions and religion (Mustapha et al. 2009).

A plethora of researchers and scholars (Alesina and La Ferrara 2002; Costa and Kahn 2003; Putnam 2007) have asserted that ethnic diversity seriously demolishes a sense of community, social cohesion, trust and formal and informal interactions in community. Ethnic diversity in community sometimes leads to a stronger sense of ethnic identity, as people seek to contrast themselves in relation to others (Uslaner 2005). Considering that increased intergroup contact generates ethnocentric tendencies and in-group-out-group distinctions (Blumer 1958), interethnic bridging social capital (IBSC) is not a guarantee as well. That is why interethnic bridging social capital as well as interethnic interaction remains vulnerable in Malaysia.

### **Ethnocentrism**

'Ethno' is about cultural heritage and 'centrism' refers to the central starting point, regarding that as the most important. So, ethnocentrism refers to judging other ethnic groups from one's own cultural

viewpoint (Bircan 2010). One of the early definitions of ethnocentrism is from Sumner (1906) who<sup>3</sup> defined it as “the technical name for this view of things in which one’s own group is the center of everything, and all others are scaled and rated with reference to it” (p. 13). Ethnocentric behaviors consist of cooperative relations within the group and the lack of cooperative relations with out-groups (LeVine and Campbell 1972).

Ethnocentric attitudes are a barrier for effective interactions among ethnic groups; not only does it diminish the trust among community members, it also damages their interactions in their ignorance. Ethnocentrism prevents people from interacting with others in a positive way, making it difficult for people to form lasting intercultural friendship (Arasaratnam and Banerjee 2007). One of the reasons is that ethnocentric people prioritize in-group interaction over out-group communication. Consequently, people will try to develop or refine cooperative relations with in-group members rather than out-group ones (Neuliep and McCroskey 1997). Ethnocentric people hold biased attitudes to support the in-group’s behavioral patterns, and often disparage or otherwise disapprove of the behavioral patterns of the out-groups (Hewstone and Ward 1985; Islam and Hewstone 1993; Weber 1994).

Muzaffar (2010) claimed that Malaysia is an ethnocentric society and when a community becomes overly ethnocentric, interethnic interaction is threatened, increasing the probability of strife. Segregation is a real issue in Malaysian multicultural university campuses (Aziz, Salleh, and Ribu 2010; Santhiram 1995; Yeoh 2006). Abdullah (2009) found that only 52 percent of Malaysian adolescents had friends of a different ethnicity (cited in Ridzuan et al. 2012) and those who are concerned with their ethnicity tend to hold negative attitudes toward out-groups, all of which encourages the rapid deterioration of the relationship between ethnic groups (Aziz, Salleh, and Kassim 2011 as cited in Ridzuan 2012). Aziz and his colleagues (2007) believe that the ethnocentric attitudes of such individuals contribute heavily to disharmonious ethnic relationships in Malaysia.

Given that there is a general consensus that poor ethnic relations are a continuous serious social problem in Malaysia, it should be noted that increasingly ethnic groups mostly prefer to mix with one another and look out for their own interests, rather than cooperating to build a united community. The idea that ethnic diversity may threaten social relationships (Jupp 2007) cannot be ignored within the Malaysian context, as Crouch (2001:227) claimed that “Malaysia seems to have most of the ingredients for continuous ethnic tension and violence”. In order to erode such taboos and encourage better interethnic relations, further investigations of the nature of relationships between ethnocentrism and interethnic interaction are definitely required.

## **Interethnic Interaction**

Interethnic interaction or intercultural interaction is a perspective of dynamic culture (Brannen and Salk 2000). Based on the indigenous philosophy of Yin Yang (Fang 2011), paradox or contradictions are not considered as obstacles anymore but also as a world view, a methodology, and a natural way of life (Fang 2011, Li, 2008). Interethnic interactions in the multiethnic campus refer to intentional and non-intentional contact among students of diverse ethnic backgrounds within academic environments (Robinson 2012). Regarding that ethnic diversity in social ties generates richer learning and social environments than ethnically homogenous ties (Hurtado 2005), multicultural institutions enhance positive cross ethnic interaction.

Positive cross ethnic interaction helps ethnical attitudes to be improved (Sigelman and Welch 1993; Powers and Ellison 1995). Nesdale and Todd (1998) found in their research that cross ethnic friendship is of great importance for students as they can learn about others, build a sense of understanding between diverse groups, and reduce prejudicial attitudes toward different ethnic groups. Campus diversity generates an ethnically rich atmosphere in which students are able to think more critically about ethnic-related social concerns, to experience diversity through interethnic interaction, exposure to other cultures, improve social self-confidence, as well as issues related to ethnic communication in classroom (Antonio 2001; Hurtado et al. 2003; Bowman 2011).

Although interethnic interaction in university has several positive effects and students can benefit from them, some researchers claimed that most educators have not tried to encourage students in purposeful

intergroup contact; therefore there is a lack of positive intentional interethnic interaction among students (Harper and Hurtado 2007). The ineffective actions in promoting interethnic interaction among diverse students are particularly true regards to non-Western societies, such as Malaysia. Considering the country's diverse socio-cultural context, social communication and relationships among different ethnic groups have been a highly debated matter in Malaysia (Crouch 2001; Hirschman 1986) since cross-cultural understandings as well as harmonious interethnic interaction are strongly stressed in this country (Tamam 2013). The lack of empirical studies in Malaysia has made it difficult to determine how specific social practices among various ethnic groups may contribute to reinforce social relationships (Mura and Tavakoli 2014). The goal of this article is to determine whether Malaysian students' interethnic interaction in universities mediates the relationship between ethnocentrism and interethnic bridging social capital (IBSC).

## **The research context**

The two universities under study have 13850 and 12800 local undergraduate students in 2013 and are among the premier multicultural public research universities in Malaysia. Ethnic breakdown in the student body is 6:3:1 ratio of Malay to Chinese to Indian in these campuses.

A large majority of local undergraduate students of all ethnics live in residential colleges. Various forms of activities throughout the year are provided by these residential colleges and students are required to pass a couple of compulsory courses related to race/ethnicity, culture, and ethnic relations (Tamam 2013). So, it is expected this kind of activities lead students to bridge to each other and communicate beyond ethnocentric attitudes but there exists a paucity of data on the extent to which the students actually experience interethnic bridging social capital through interethnic interaction (Tamam 2013).

## **Research hypotheses**

In line with this above discussion, the current research addresses the following hypotheses.

H1: Ethnocentrism is significantly related to interethnic bridging social capital among local students in Malaysian multiethnic universities.

H2: Ethnocentrism has a significant impact on interethnic interaction among local students in Malaysian multiethnic universities.

H3: Interethnic interaction mediates the relationships between ethnocentrism and interethnic bridging social capital in Malaysian multiethnic universities.

## **Methods**

### **Sampling and Data Collection**

The survey data came from a total of 400 undergraduate students of two multicultural public universities. The sample was collected in mid 2013 on a self-administered questionnaire written in Bahasa Malaysia (Malaysia official language). In an effort to achieve a study sample that representative of the population, stratified quota-sampling procedures were then employed. That is, the sample was drawn to reflect the ethnic composition of the population within the universities under study. Respondents were selected based on their ethnic ratio, meaning Malays (60%), Chinese (30%) and Indians (10%). Majority of the local students were living in dorms then two residential colleges with the highest number of local students were selected based on a list of students in each university. As interethnic interaction was one of the key variables in this study, the data collection was done in dormitory's canteens where different students meet each other regularly and experience interacting with out-group members. The selection of respondents

was based on systematic random sampling. In this study, every third student who was entering the <sup>5</sup> canteens was selected to fill the questionnaire. This approach was continued until fulfilling the required number for each ethnic.

Mahalanobis distance (d-squared) was employed to identify multivariate outliers out of 400 cases. It measures the distance in standard deviation units between a set of scores for one case and the sample means for all variables (centroid). An outlying case has a d-squared value that stands distinctively apart from all the other d-squared value (Byrne, 2010). Thus, after removing a total of 57 outliers, the sample size of usable responses was 343 and indicated a total of 200 Malay, 105 Chinese, and 38 Indian undergraduate students. The data closely matched the ethnic ratio distribution in universities. The respondents' age ranged from 18 to 27 years with a mean of 21.90 (SD = 1.58). There were more female respondents (57%) than male respondents (43%). The samples represent all levels of undergraduate students; first-, second-, third-, and fourth-year students, 30.1%, 29.5%, 23.9% and 16.5% respectively.

This study employed Structural Equation Modeling (SEM) method to overcome limitations of other methods of analysis most commonly used in social sciences studies. SEM is able to take measurement error into account by explicitly including measurement error variables. Therefore, conclusions about relationships between constructs are not biased by measurement error. In addition, SEM allows to use of several indicator variables per construct simultaneously, which leads to more valid conclusions on the construct level (Hair et al. 2010).

## Measurement

*Ethnocentrism*: in this study it refers to the arrogant, self-focused perceptions of the Malays, Chinese and Indians within their own groups which tend to decrease trust and cooperation with other ethnics. The 23 items of ethnocentrism (exogenous variable) with a five-point Likert scale from 5 (*strongly agree*) to 1 (*strongly disagree*) were adopted from Neuliep and McCroskey's (1997) and Neuliep's (2002) generalized ethnocentrism (GENE) scale. The items that extracted from the original scale were modified before employing in this study.

As this study has employed structural equation modeling (SEM) for testing and estimating casual relations, running exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to confirm the items are important steps. Then, after running EFA and CFA, 5 questions remained out of 23 items for measuring the ethnocentrism. Examples of the items on the scale include: "*I do not trust people who are from different ethnics*" and "*I dislike interacting with people from different ethnics*". Reliability analyses of the scale provided evidence of the internal consistency of items ( $\alpha = 0.92$ )

*Interethnic bridging social capital (IBSC)*: in this research it is defined as social capital that allows individuals to draw on resources from peers that are of different ethnic groups. The 20 items of interethnic bridging social capital (IBSC) (endogenous variable) with a five-point Likert scale, ranging from (1) strongly disagree to (5) strongly agree were adopted from Williams' (2006) bridging scale, Ellison, Steinfield, and Lampe's (2007) bridging social capital scale and Tamam's interethnic bridging social capital (2013). Finally, after running EFA and CFA, 7 validated items remained to measure IBSC in this study. Here are some examples of the items: "*I am willing to spend time to support campus student activities that are multiethnic in nature*" and "*Most of the times I prefer to work in a multiethnic group in course assignments*". The reliability coefficient of the scale was 0.88.

*Interethnic interaction*: it is defined as students' face-to-face interaction with peers and friends of other ethnics on campus. Interethnic interaction was considered as mediating variable in this study. Seven items with a 5-point ordinal scale response format (0 = *Never*, 1 = *seldom*, 2 = *Sometimes*, 3 = *Often*, 4 = *Very often*) were adopted from the Your first college year (YFCY) survey instrument (2013). The items were validated through EFA and CFA and finally 6 items were confirmed to measure interethnic interaction. Examples of the items on the scale include: "*I had meaningful and honest face-to-face discussions about ethnic relations with peers and friends of different ethnics*" and "*I studied or prepared for class with students of different ethnics through face-to-face discussions*". The Cronbach's Alpha of the scale was 0.89.

Respondents were asked to write their year of birth, the number of semesters they had been in the university including the current semester, and mark the appropriate category pertaining to gender and how they preferred to identify themselves ethnically. <sup>6</sup>

## Data analysis and results

Data were analyzed through Statistical Package for Social Sciences (SPSS) version 20 and Analysis of Moment Structure (AMOS) version 20. In order to explore and verify patterns in a set of correlation coefficients, exploratory factor analysis (EFA) was conducted to discover the underlying variance structure of a set of indicators (Brown 2001). We used Maximum Likelihood and Promax rotation. Kaiser-Meyer-Olkin measure of sampling adequacy (0.909), Bartlett's test of Sphericity results ( $p$ -value  $< 0.05$ ) met the criteria (Field 2013) and there are 129 (21.0%) non-redundant residuals with absolute values greater than 0.05. The factors approximately explain 57.59% of total variance. After removing uncorrelated and weak items during EFA, ethnocentrism, IBSC and interethnic interaction had 5, 7, and 6 items respectively. The details of the measurement properties for each construct are shown in Table 1. Confirmatory factor analysis (CFA) was carried out to determine the degree of model fit, the explained variance, the standard residual for the measurement variables and the adequacy of the factor loadings. The purpose of the model fit testing is to investigate the appropriateness (Goodness of Fit or GOF) between the information collected and the model. Goodness of Fit (GOF) is "the degree to which the actual or observed input matrix (Covariance and correlation) is predicted by the estimated model" (Hair et al. 2010:580). The main purpose of this stage was to identify and retain items that met the construct validity of each scale. Hinkin (1998) suggested that at least three items are needed for any scale to test the homogeneity of items within each latent construct. The results of CFA are reported in Table 1.

Standardized factor loadings are greater than 0.5 and all of them are significant at 95% confidence level (Hair et al. 2010). Although due to large sample size, Chi-square goodness of fit test is significant ( $p$ -value  $< 0.05$ ) (Hair et al. 2010), by referring to other model fit indices the model fit is good (Model Fit:  $\chi^2$  (df) = 240.672 (129),  $\chi^2 / df = 1.866$ , GFI = 0.928, NFI = 0.936, CFI = .969, IFI = .969, RMSEA = .050).

After reviewing model modification indices, the final model was approved. In contrast with Cronbach's Alpha, the composite reliability has been found to be a more suitable indicator of construct validity which measures the overall reliability of a collection of heterogeneous but similar items (Fornell and Larcker 1981). Then we assessed construct reliability, convergent validity, and discriminant validity (Hair et al. 2010). Construct reliability indicates how well indicators of a construct are consistent in what they are supposed to measure (Straub, Boudreau, and Gefen 2004) and it can be assessed by composite reliability. Composite reliability greater than 0.7 indicates good reliability (Hair et al. 2010; Nunally and Bernstein 1994).

As shown in Table 1, all constructs of the model are reliable (composite reliability range 0.876-0.912). For convergent and discriminant validity, we followed Hair et al.'s (2010) guideline and assessed average variance extracted (AVE), maximum shared squared variance (MSV), and average shared square variance (ASV). Convergent validity assesses how well the construct is explained by its indicators. There are two requirements for convergent validity. First, AVE should be greater than 0.50. AVE shows the degree that a latent is explained by its observed variables values. It means that at least 50% of the variance of the indicators should be accounted for. Second, composite reliability should be greater than AVE (Fornell and Larcker 1981).

As indicated in Table 1, AVE for all constructs are greater than 0.5 and CR is greater than AVE for each construct. Thus, all constructs have convergent validity. Discriminant validity measure assesses how well a construct differs from other constructs (Roldán and Sánchez-Franco 2012). For discriminant validity AVE should be greater than MSV and ASV. Shared variance indicates to what extent a variable can be explained in another variable (Fornell and Larcker 1981). As shown in Table 1, AVE measure for each construct is greater than its MSV and ASV and there is no discriminant validity issue. The combination of these results suggests that the CFA (measurement model) appears to show a very good fit between the observed and unobserved variables (Byrne 2010).

**Table 1: Measurement Items Properties**

<b>Construct / Measure (Composite Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Squared Variance (MSV), Average Shared Square Variance (ASV))</b>		<b>Factor Loading</b>
<i>Ethnocentrism (CR = 0.912, AVE = 0.673, MSV = 0.157, ASV = 0.116)</i>		
1	I do not cooperate with people who are from different ethnics.	0.831
2	I do not trust people who are from different ethnics.	0.803
3	I dislike interacting with people from different ethnics.	0.850
4	I have little respect for the values of other ethnics.	0.827
5	I have little respect for the customs of other ethnics.	0.791
<i>Interethnic Interaction (CR = 0.898, AVE = 0.596, MSV = 0.323, ASV = 0.116)</i>		
1	I had meaningful and honest face-to-face discussions about ethnic relations with peers and friends of different ethnics.	0.718
2	I had satisfied face-to-face interactions with peers or friends of different ethnics on campus.	0.804
3	I had friendly face-to-face interactions with peers or friends of different ethnics on campus.	0.801
4	I had face-to-face intellectual discussions with peers or friends of different ethnics outside the class.	0.820
5	I felt secured during face-to-face interactions with peers or friends of different ethnics.	0.737
6	I studied or prepared for class with students of different ethnics through face-to-face discussions.	0.748
<i>Interethnic Bridging Social Capital (CR = 0.876, AVE = 0.503, MSV = 0.323, ASV = 0.240)</i>		
1	There are peers and friends of different ethnics whose opinion I value.	0.620
2	Interacting with people of different ethnics in this campus make me interested in what people in this campus are thinking.	0.727
3	Most of the times I prefer to work in a multi-ethnic group in course assignments.	0.704
4	I like to get involved in activities design for students of all ethnic groups.	0.720
5	Those friends of different ethnics who I frequently interact with, we have a great deal of effect on each other.	0.725
6	My peers of different ethnics and me help one another with small task such as on	0.753

	academic matters.	8
7	I am happy to do activities with peers and friends from other ethnic groups in this campus.	0.710

Note: Model Fit:  $\chi^2 (df) = 240.672 (129)$ ,  $\chi^2 / df = 1.866$ ,  $GFI = 0.928$ ,  $NFI = 0.936$ ,  $CFI = .969$ ,  $IFI = .969$ ,  $RMSEA = .050$ . All factor loadings are more than 0.5 and they are significant.

To test the hypotheses, the structural model was developed (Byrne 2010). The structural model explains how the researchers have defined the relationships between the latent factors. It consists of a set of exogenous and endogenous latent variables in the model, together with the direct effects connecting them. The model-fit indices exceeded their recommended value, suggesting that the structural model portrays a very high goodness of fit (GOF) to the sample drawn (Lin and Lee 2005).

## Hypothesis testing

Full structural model including direct and indirect relationship between independent variable (ethnocentrism), mediating variables (interethnic interaction) and dependent variable (IBSC) were examined and significance of all paths linking variables were also tested in order to answer the research questions. The path coefficient was examined to determine the relationship between exogenous variables and endogenous variables (Figure 1). The casual paths can be evaluated in terms of significance and strength, using standardized path coefficient that range between -1 and +1. Based on  $\alpha$  of .05, the test statistics generated from output should be a greater than  $\pm 1.96$  to indicate that the null hypothesis can be rejected. The rejection of the null hypothesis means that the structural coefficient is not zero (Byrne 2010). After reviewing the statistical significance of the standardized paths, the strengths of relationships among the variables were reviewed.



**Figure 1:** *The Hypothesized Model of the Study*

First, we hypothesized that ethnocentrism is significantly related to interethnic bridging social capital among local students. Table 2 provides details of SEM regression path, the standardized regression weight, squared multiple correlation, standard error, critical ratio, p-value and remark (whether the particular hypothesis is supported). The results, as depicted in Table 2, the exogenous variable of ethnocentrism has a significant negative contribution in the prediction of interethnic bridging social capital (IBSC) which is significant at 95% confidence level ( $\beta = -0.39$ , C.R = -6.177,  $p = .001$ ). In other words, the regression weight for ethnocentrism in the prediction of IBSC is significantly different from zero at the 0.001 level (two-tailed). When ethnocentrism goes up by 1 standard deviation, IBSC goes down by -0.39 standard deviation. Based on the direct structural equation modeling, the results show that the predictor variable (ethnocentrism) in this hypothesized path model explains 16% of variance of interethnic bridging social capital (IBSC). Therefore, ethnocentrism explains low percentage of variances of IBSC. Thus, our first hypothesis was accepted.

**Table 2:** *Hypothesis Testing*

Hypothesis		Standardized Regression Weight ( $\beta$ )	Squared Multiple Correlation	Standard Error	Critical Ratio	p-value	Remarks
H1	Ethnocentrism → Interethnic Bridging Social Capital	-0.394	0.156	0.064	-6.177	***	Supported

H2	Ethnocentrism → Interethnic Interaction	-0.272	0.075	0.068	-4.483	***	Supported
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\*\*\* $P < 0.001$

Second, we hypothesized that ethnocentrism has a significant impact on interethnic interaction among local student. As it is shown in Table 2, ethnocentrism has a significant negative impact on students' interethnic interaction ( $\beta = -0.27$ , C.R = -4.483,  $p = .001$ ). Meaning, the regression weight for ethnocentrism in the prediction of interethnic interaction is significantly different from zero at the 0.001 level (two-tailed). When ethnocentrism goes up by 1 standard deviation, interethnic interaction goes down by -0.27 standard deviation. The findings indicate that ethnocentrism (predictor variable) in this hypothesized path model explains 7% of variance of interethnic interaction. Hence, the second hypothesis of the study was supported.

### Hypothesis Testing for Mediation in AMOS

To test the third hypothesis, i.e. to check the mediating effect of interethnic interaction between ethnocentrism and interethnic bridging social capital, direct and indirect effect of Beta with and without the mediator were calculated in AMOS. The mediating effect of interethnic interaction variable was assessed through path analysis. The result shows that the relationship between ethnocentrism and IBSC was significant ( $\beta = -0.39$ ,  $p = 0.001$ ) in the direct model. For testing the third hypothesis, first the relationship between independent and mediating variables and second, the relationship between mediating and dependent variables were examined. So, interethnic interaction as the mediator variable was added to the model and bootstrapping (2000 resamples) was used to assess the significance of the direct and indirect effects. Bootstrapping employed because it is more accurate than other methods such as the causal steps approach by Baron and Kenny (1986) and the normal theory approach by Sobel (1982), Aroian (1947), and Goodman (1960) (MacKinnon, Lockwood, and Williams 2004; Hayes 2013).

As shown in Table 3, ethnocentrism had a significant negative effect on interethnic interaction ( $\beta = -0.27$ ,  $p = 0.001$ ) and interethnic interaction had a significant positive effect on IBSC ( $\beta = 0.497$ ,  $p = 0.002$ ). By controlling the mediator, the direct effect of ethnocentrism on IBSC was significant at 95% confidence level ( $\beta = -0.26$ ,  $p = 0.001$ ). Moreover, as shown in Table 3, the indirect effect was significant too ( $\beta = -0.13$ ,  $p = 0.001$ ), it means that the mediator absorbs some of the direct effect (Hair et al. 2010). In other words, the indirect effect of ethnocentrism on interethnic bridging social capital through interethnic interaction was not zero by a 95% bias-corrected (bias- corrected CI = -.256 to -.065,  $p = .001$ ).

**Table 3.** Mediation Effect

Third Hypothesis	Direct Beta without Med	Direct Beta with Med	Indirect Beta	Squared Multiple Correlation	Mediation type observed
Ethnocentrism → [Interethnic Interaction] → Interethnic Bridging Social Capital	-0.394***	-0.261***	-0.136***	0.39	Partial Mediation

Note: Variable in brackets denotes mediation. \*\*\* $P < 0.001$

The results indicate that interethnic interaction partially mediated the negative effect of ethnocentrism on interethnic bridging social capital. Here again, our third hypothesis was supported. Squared multiple

correlations for IBSC was 0.39 and it indicates that totally 39% of interethnic bridging social capital (IBSC) was explained by this model.

## Discussion

The main purpose of this study was to test the hypothesized structural model with ethnocentrism as an independent variable that is predictive to interethnic bridging social capital (IBSC). At the same time, this study examines the role of interethnic interactions as the mediator on the relationship between ethnocentrism and IBSC. The impetus of the study comes from the gap in the Malaysian local literature on interethnic bridging social capital as well as effective elements on increasing and decreasing IBSC. The first research question was: What is the relationship between ethnocentrism and local students' interethnic bridging social capital in Malaysian multiethnic universities? The findings clearly imply that ethnocentrism has a negative and significant effect on students' interethnic bridging social capital and erodes it among various ethnic groups.

The first conclusion is that a glaring failure to develop bridging forms of social capital across ethnic communities supports the notion that ethnocentrism is a barrier against the successful development of the main elements of social capital, which are trust and reciprocity. Ethnocentric attitudes among students consistently damaged the very possibility of cooperation, trust and interaction among each other, all of which are necessary for social cohesion. Ethnocentric students tended to assume their own culture was the best, and were not interested even in learning about the values and customs of other ethnic groups; when minds are closed it is difficult for there to be a meeting of the minds.

Feelings of ethnocentrism can and do affect student reactions for the worse, leading to error in their decision-making. Their distorted perceptions of others lead to mistakes and non-friendly interaction based on feelings and imaginary "facts" shaped by their own biases. The findings prove that ethnic segregation is still a serious issue in Malaysian universities, and that local ethnic groups remain focused on creating a sense of "we" and "us" that excludes an out-group as an other, a "them". Coexistence might successfully take place without much mutual understanding, but it is not a very efficient form of coexistence, squandering substantial potential for productive collaboration across ethnic groups.

The results clearly indicate that more is required to be done to improve the situation and to minimize the possibility of conflict and negative behavior. The pattern in the findings reflects that the students are not significantly ethnically integrated in their time at university, and the multiethnic universities studied have not succeeded in encouraging them to mingle on a regular basis. Interethnic socializations and interaction are neglected or if done are both insufficient and inefficient. Perhaps one might speculate that multicultural universities could urge them to ethnically integrate by providing different opportunities, but it is the students who did not tend to do so. Whether or not that speculation is accurate as the cause of the narrow interethnic bridging social capital among students, it is indisputable the problem itself exists. This is a serious issue in these two multiethnic universities.

These findings support the claim made in previous studies, in that the diversity, interethnic differences and racial conflict decreases social capital (McPherson, Smith-Lovin, and Cook 2001; Alesina and La Ferrara 2002; McLaren 2003; Leigh 2006; Coffé and Geys 2006; Putnam 2007; Hooghe, Reeskens, and Stolle 2007; Laurence 2011; Vermeulen, Tillie, and Walle 2012). The findings suggest that ethnic diversity generates challenges for developing and sustaining social capital, and then it might reduce interethnic bridging social capital. It is beyond the scope of this study to explain why ethnic groups feel ethnocentric towards outsiders in the first place, but it has confirmed that interethnic bridging social capital is dampened by negative effects of ethnic diversity and ethnocentrism. To put it in another way, ethnic diversity probably increase negative out-group orientations and generate ethnocentric attitude, and that subsequently threaten interethnic bridging social capital.

Does interethnic interaction mediate the relationship between ethnocentrism and local students' interethnic bridging social capital in Malaysian multiethnic universities? Interethnic interaction as a mediator could reduce the negative effect of ethnocentrism on IBSC. Meaning that increasing

communication among different ethnic groups at multicultural universities, interethnic bridging social capital can be increased. In other words, when people of different cultures work together in an organizational context, the emergence of a new 'negotiated culture' is expected (Brannen and Salk 2000). Effective interethnic interaction plays a vital role to enhance bridging capital among ethnicities. Thus, this finding has been found consistent with the previous studies that indicated ethnocentrism is a barrier to effective intercultural communication (Lin, Rancer, and Trimbitas 2005). The results provide further confirmation on the positive role of interethnic socialization found in previous intercultural relations studies (e.g. Tamam 2013; Gurin and Nagda 2006; Hurtado 2005).

The results of current study indicate that ethnocentric attitudes are barriers against effective face-to-face communication with other people of different ethnics. Interethnic interaction on campus can break the ices and enhance trust and cooperation among different students of other ethnics. According to Fang (2011) any culture can potentially incorporate its opposite culture if cultural learning and cultural interactions take place over time.

This study proves that increases in interethnic interaction can have a positive effect on interethnic bridging social capital and increases it subsequently. Frequent interaction makes students become closer and helps them to cooperate with each other. When people feel secure and are habituated to the possibility of trusting others, this provides a strong foundation to allow them to communicate with others outside their inner circle, and eventually, far beyond. Intercultural interaction has an effective role on enhancing bridging social capital and it leads to better friendly environment.

## **Implications and recommendations**

The empirical findings of this research have several significant theoretical contributions. Factors predicting interethnic bridging social capital were investigated using the theory of social capital as supportive theory. An important theoretical contribution of this study is the finding concerning the interethnic type of bridging social capital. Although, many studies have already been done regarding bridging capital, this study has a narrower focus on an ethnic point of view in a university student context. Hence, this study can theoretically help the dynamism and evolution of the Putnam's social capital theory.

The findings of this study suggest several practical contributions. Institutions of higher education should further encourage intercultural activities in order to enhance social relationships. These activities can create interethnic bridging as they make trust possible by establishing contacts among highly distrustful groups. Universities can realize their capacity to educate and improve their students by encouraging face-to-face interethnic interaction between students of diverse backgrounds. This could be achieved by establishing a community at any university with a high number of different ethnic students which supports integration and participation of students.

Regular, structured and ongoing interethnic interactions must occur in a friendly environment in order to increase cooperation among different ethnic groups. Universities should make students to socialize and build relationships together irrespective of their ethnic groups. The primary responsibility is with the government to encourage more effective university-based interethnic integration. All policy makers, authorities, Ministry of Higher Education, public universities as well as private universities should be focused on devising numerous strategies to enhance trust and cooperation among people. In other words, ethnic issues must be resolved in the interest of all ethnic groups, with the encouragement of consistent practical steps to improve unity and integration of ethnic groups in Malaysia.

## **Limitations and suggestions for future research**

The present study was conducted with a specific age group. The teenagers or adolescents may have different interethnic interaction style or ethnocentric attitudes if compared with this age group regardless of level of education. Therefore, a similar study needs to be replicated on various respondents such as graduate students or secondary school students. Moreover, future studies should emphasize more on a

Since one of the objectives of this study is to determine the relationship between ethnocentrism and interethnic bridging social capital (IBSC), a new study can be conducted to determine what other significant factors can decrease IBSC as well.

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