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## **Intercultural Communication Barriers, Contact Dimensions and Attitude towards International Students**

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### **Abstract**

Extending Spencer-Rodgers and McGovern's (2002) intergroup threat research, this study investigated the role of intercultural communication emotions (ICE) - negative affect associated with perceived linguistic and cultural barriers, in conjunction with contact dimensions, in understanding domestic students' attitude towards international students. Participants included 327 Australian undergraduate university students (63% female and 37% male; ranging from 17 to 58 years of age) who anonymously self-reported their social interactions with and perceptions of international students. Multiple hierarchical regression results indicated that intercultural communication emotions were moderately and uniquely related to unfavourable attitudes towards international students. The quantity and quality of social contact exhibited small positive effects on intergroup evaluations and this relationship was partially mediated by ICE. Theoretical implications are discussed and integrated in reference to strategies for creating intercultural programs on campuses. The important role of negative factors in instigating and ameliorating intergroup attitudes is highlighted.

### **Introduction**

Actual and perceived threats operate in most, if not all, intergroup situations. Typically they are portrayed as cognitive processes consisting of thoughts and beliefs about outgroups members (e.g., stereotypes), but behavioural associations (i.e., past or intended actions) and emotional reactions also constitute a fundamental source of prejudicial attitudes in intercultural relations (Stephan, Diaz-Loving & Duran, 2000).

### **Emotions in Intercultural Communication**

The Integrated Threat Theory (ITT) of Prejudice (Stephan & Stephan, 1996) proposes that outgroup attitudes can be based primarily or exclusively on any one of the tripartite perspectives (Corenblum & Stephan, 2001). Nonetheless, some researchers in the area of intergroup relations (e.g., Blair, Park & Bachelor, 2003; Esses & Dovidio, 2002; Paolini, Hewstone, Voci, Harwood & Cairns, 2004) have recently suggested that affective responses contribute more strongly to the structure of intergroup attitudes than either cognitions or behavioural determinants.

Spencer-Rodgers and McGovern (2002) recognised the significance of intergroup emotions in "determining people's evaluative orientation toward ethnolinguistic outgroups" (p. 609), and proposed intercultural communication emotions (or ICE) as a potentially important source of intergroup threat. In their study on the interaction patterns between American and international college students, they identified that ICE - the negative affect associated with perceived language barriers, unfamiliar customs and cultural misunderstandings - constituted a unique and potent source of negative attitudes towards the culturally different foreign student. Other research on intergroup anxiety (e.g., Littleford, Wright, & Sayoc-Parial, 2005) also suggests expectations of negative outcomes leading to feelings of threat when students experience or anticipate social interactions with members outside their racial/ethnic group.

### **Amount of Contact and Intergroup Attitude**

Allport (1954) acknowledged that no simple relationship exists between intercultural interactions and intergroup evaluations. However, increased amounts of intergroup contact have the potential to

reduce prejudice, which in turn is associated with more favourable racial/ethnic attitudes (Kalin, 1996).

Recent research on domestic students' attitudes towards international students shows a link between greater amounts of intergroup contact and lower levels of perceived threats (e.g., Dalglish & Chan, 2005; Stephan et al., 2000). Nevertheless, the effects of quantity of contact on intergroup attitudes are not uniform. There have been reports of more frequent contact accompanied by incidents of intergroup conflict, resulting in serious social, psychological and academic consequences for international and domestic students alike (Ward & Masgoret, 2004).

### **Contact Quality and Intergroup Attitude**

Research on intergroup contact has also indicated that optimal contact conditions, such as those characterised as intimate, positive, voluntary and involving equal status, typically enhance the positive effects of intergroup outcomes (see Pettigrew & Tropp, 2006). Islam and Hewstone (1993), in their early work on intercultural relations (between Hindus and Muslim students in Bangladesh), reported significantly larger effects from contact quality than from the amount of contact between the two groups on attitudes towards the outgroup. Their findings were later supported by Stephan et al. (2000), who found that more favourable opinions held by American and Mexican students toward one another were directly related to the quality of intergroup contact. This suggests the quality of contact may be more important than the quantity per se in perceiving threat and predicting outgroup attitude. Quantity, but not quality, of contact was examined by Spencer-Rodgers and McGovern (2002).

### **Research Aim and Hypotheses**

As Australian university campuses have become increasingly culturally and linguistically diverse with rapid growth in Asian international students (Smart, Volet, & Ang, 2000), this study aimed to build on Spencer-Rodgers and McGovern's (2002) research and investigate the role of intercultural communication emotions or ICE as a source of intergroup threat in domestic students' attitudes towards international students in the Australian context. Our first hypothesis was that Australian domestic students' intercultural communication emotions would be related to their attitude towards international students.

Because contact variables – both in terms of quantity and particularly quality – have been identified by Allport (1954) and others (e.g., Berryman-Fink, 2006) as antecedents of intergroup attitudes within international settings, our research also aimed to investigate the effects of the quantity and quality of contact with international students, on domestic students' attitude towards international students. Our

second hypothesis was that contact quality would be related to domestic students' attitude to international students, over and above the predictive utility of contact quantity.

Investigations into possible mediators underlying the relationships between contact and intergroup attitude can advance research on prejudice against culturally different others (Pettigrew & Tropp, 2006; Stephan et al., 2000). It is conceivable that contact quantity and quality are associated with ICE, and that ICE could play a mediating role in the effects of contact quantity and quality on intergroup attitude. In this study, we tested the hypothesis that ICE would mediate the effect of each of the contact factors on domestic students' attitude towards international students.

## **Method**

### **Participants and Procedure**

Participants were 327 domestic undergraduate students (204 females, 119 males) from a Canberra university. Ages ranged from 17 to 58 years, with a mean age of 23.11 ( $SD = 7.4$ ) years. Volunteers were recruited from approximately 600 students enrolled in introductory courses in management and psychology, to respond to an anonymous self-report questionnaire. The majority of participants were born in Australia (84.5%), identified as Anglo-Australian (57.7%), and spoke English as the main language at home (87.9%).

### **Measures**

**Attitude toward international students** was assessed using a 12-item measure, presented as 5-point Likert-type scales, from Ward, Masgoret, Ho, Holmes, Cooper, Newton, and Crabbe (2005). Higher scores indicate more positive opinions of international students. This measure attained a high internal consistency of  $\alpha = .90$  in the current study.

**Intercultural communication emotion (ICE)** was measured by adapting a 7-item measure developed by Spencer-Rodgers and McGovern (2002), and presented as 5-point Likert-type scales. Their potentially more negative wording of “foreign students” was changed to “international students” and the first item was made positive to combat a negative response bias. Higher scores correspond to stronger negative affect. A satisfactory  $\alpha = .72$  was obtained in this study.

**Contact quantity** was assessed by the amount of academic involvement and extracurricular activities with international students, using an 8-item measure (presented as 4-point numerical scales) adapted from Ward et al. (2005). In this research, internal consistency was high with  $\alpha = .90$ .

**Contact quality** was assessed using Ward et al.’s (2005) scale comprising six pairs of bipolar adjectives (presented as 7-point scales) pertaining to the nature of intercultural contact. Higher scores indicate a more favourable quality of contact. A satisfactory  $\alpha = .80$  was attained in this study.

## Results

Table 1 presents the descriptive statistics for all the scaled variables. The mean scale scores for contact quantity and ICE fell below mid-point, suggesting that domestic students tended to avoid social or academic activities with international students, and feel frustrated, impatient and uncomfortable with intercultural communication.

In our survey, almost one third of our sample of Australian students, like other locals in previous research (see Smart et al., 2000) and across the Tasman (Ward et al., 2005), found it unpleasant to *listen to or talk to* international students with a strong accent. Furthermore, greater than half of the participants felt annoyed when talking to students with poor English skills [AH1].

However, mean contact quality and attitude scores were slightly above mid-point. The latter finding corresponds with Spencer-Rodgers and McGovern’s (2002) “somewhat favourable” overall orientation. The skewness in the distribution of attitude scores was addressed by adopting a more conservative significance level of .01 (Gravetter & Wallnau, 2000).

Table 1: Descriptive statistics for predictors and attitude.

Variable	<i>M</i>	<i>SD</i>	<i>Actual range</i>	<i>Possible range</i>	<i>Skew<sup>a</sup></i>
Attitude to IS	3.68	.67	1-5	1-5	-.569
ICE	2.58	.71	1-4.86	1-5	.017
Contact quantity	2.17	.76	1-4	1-4	.339
Contact quality	4.27	.91	1.17-6	1-6	-.327

<sup>a</sup>SE skewness = .14

Note. ICE = Intercultural communication emotions.

Attitudes to IS = Attitude toward international students.

## Intercorrelations

All of the hypothesised predictors were found to be significantly correlated with intergroup attitudes in the expected direction, with ICE ( $r = -.552$ ), contact quality ( $r = .524$ ), and contact quantity ( $r = .345$ ) each displaying a moderate relationship with attitude towards international students. Gender also maintained a small relationship with attitude ( $r = .186$ ), with females more favourably disposed towards international students than males. Moreover, all of the predictor variables were intercorrelated, with ICE and contact quality moderately correlated ( $r = -.499$ ).

## Regression Analyses

A hierarchical regression analysis was conducted to determine the relative contributions of each of the hypothesised predictors in explaining attitude towards international students (see Table 2). Gender, a demographic variable, was entered first. Quantity and quality of contact were added in Step 2, followed by ICE in the final step.

In Step 1, gender accounted for a significant amount of variance in attitude (3.4%),  $F(1, 321) = 11.412, p = .001$ . In Step 2, the addition of contact quantity and contact quality to the model explained an extra 27.7% of the variance in attitude, overall  $F(3, 321) = 47.931, p < .001$ . Both contact variables were significant predictors of intergroup attitude, but gender was no longer one.

In Step 3, the addition of ICE contributed a further 10.8% to the explained variance in attitude. The final model explained altogether 41.9% of the variance in intercultural attitude,  $F(4, 321) = 57.267, p < .001$ . In decreasing magnitude of the effect sizes, the significant predictors of attitude towards international students were intercultural communication emotions, contact quality, contact quantity, and gender (being female).

We should mention that the same set of hierarchical regression analysis conducted with a sub-sample of Australian-born domestic students have rendered similar results. These results will not be reported here in view of space constraints, but are available on request from the first author.

Table 2: Hierarchical regression predicting attitude towards international students.

Variable	<i>B</i>	$\beta$	<i>R</i> <sup>2</sup>	$\Delta R^2$
<b>Step 1</b>				
Gender	.256	.186**	.034	.034**
<b>Step 2</b>				
Gender	.126	.091		
Contact quantity	.163	.185**		
Contact quality	.324	.440**	.311	.277**
<b>Step 3</b>				
Gender	.171	.124*		
Contact quantity	.131	.148**		
Contact quality	.188	.255**		
ICE	-.364	-.383**	.419	.108**

Note. ICE = Intercultural communication emotions.  
\**p* < .01. \*\**p* < .001.

### Mediating Relationships

The possible mediating role of ICE in the effects of each of the contact factors on intergroup attitude, was investigated with Baron and Kenny's (1986) 3-step procedure).

**Contact quantity.** In Step 1, a significant direct path between contact quantity and intergroup attitude was established. In Step 2, contact quantity was significantly associated with ICE. In Step 3, while taking into account ICE, the correlation between contact quantity and attitude was reduced, but remained statistically significant at *p* < .001. A subsequent Sobel (1988) test shows that the reduction was statistically significant, *z* = 4.47, *p* < .001, indicating that the effect of contact quantity on intergroup attitude was partially mediated by intercultural communication emotions (see Figure 1).

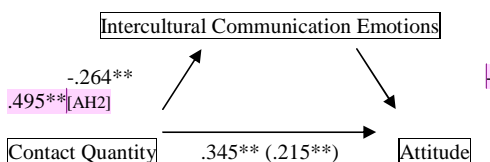


Figure 1: Paths from contact quantity to intergroup attitude. Values are standardised regression coefficients.

**Contact quality.** In Step 1, contact quality was found to be associated with attitude scores. In Step 2, contact quality was found to be associated with ICE. Finally, in Step 3, while taking into account ICE, the relationship between contact quality and attitude remained significant at *p* < .001. A subsequent Sobel test shows that the reduction was significant, *z* = 6.11, *p* < 0.001,

indicating that the effect of contact quality on attitude was partially mediated by intercultural communication emotions (see Figure 2).

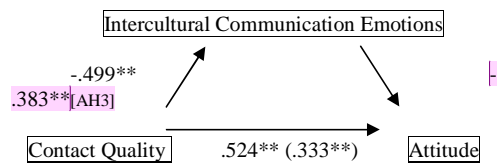


Figure 2: Paths from contact quality to intergroup attitude. Values are standardised regression coefficients.

### Discussion

We found clear support for the first hypothesis regarding the relationship between ICE and domestic students' attitude towards international students. Indeed, the results obtained show that, in decreasing magnitude of effect sizes, each of intercultural communication emotions (ICE), contact quality, and contact quantity, contributes to the explanation of variation in Australian domestic students' attitude towards international students.

Notably, undergraduate domestic students experiencing negative affect associated with perceived linguistic and cultural barriers, also reported less favourable attitudes towards international students. This finding is consistent with Spencer-Rodgers and McGovern's (2002) research in demonstrating the important role that emotions pertaining to perceived intercultural communication barriers play in intergroup evaluation. Our finding also converges with a substantial body of research evidence (e.g., Chen 2002; Paolini, et al., 2004) that threats posed by language barriers may be inextricably linked to intercultural attitudes.

Cultural barriers can also be perceived as contributing to intergroup threat appraisals. For many domestic students, exposure to international students' different ethnic customs and practices could heighten their anxiety (Stephan & Stephan, 1996), and instill discomfort and uncertainty (Pettigrew & Tropp, 2006). Also, negative attitudes may be provoked either via direct or anticipatory social interactions with international students who do not understand host customs and ways of behaving.

Consistent with our second hypothesis, we found that the quality of intergroup contact is linked with domestic students' attitude towards the international students. This association remained after controlling for the quantity of intergroup contact. The somewhat larger effect exerted by contact quality, relative to contact quantity, on intergroup attitude, is congruent with the general research finding that both dimensions of contact (but particularly

contact quality) are related to positive intergroup attitudes (Pettigrew & Tropp, 2006; Stephan et al., 2000). It is possible for even a single negative outgroup experience to have implications for future interactions, and to generalize to attitudes concerning international students as a whole (Islam & Hewstone, 1993; Ward et al., 2005)

The final hypothesis predicting the significant (albeit partial) mediating effects of intercultural communication emotions were also supported. Overall, we found both direct and indirect (via ICE) relationships between contact quantity or quality, and intergroup attitude. This finding is consistent with previous affect-based intercultural contact studies by Islam and Hewstone (1993), Stephan et al., (2000), and Ward and Masgoret (2004).

### Future Directions and Conclusions

In this study, we have teamed up Spencer-Rodgers and McGovern's (2002) intercultural communication barriers with the search for mediators as put forward by Pettigrew and Tropp (2006). This serves not only to advance a plausible causal model of contact effects more complex than Allport's original contact hypothesis (Allport, 1954), but places a broad range of intergroup emotions at the interface of attitude research. The findings provide a tentative interpretation of the challenges to intergroup contact that both domestic and international students may perceive.

Future research on domestic students' intercultural perceptions and experiences, particularly communication emotions, will be vital for promoting harmony on multicultural campuses. Emotive-based threats as an antecedent to attitudes could become more prevalent as international trade and education brings more culturally diverse groups into contact (Dalglish & Chan, 2005). Researchers could explore further the dynamic interplay between intercultural communication emotions and various contact conditions influenced by different cultural beliefs, values and linguistic styles, in education, work, as well as community settings.

Further investigations can also consider the relevance and efficacy of institution-based cooperative learning initiatives such as EXCELL™—the Excellence in Cultural Experiential Learning and Leadership program (Mak & Buckingham, 2007). Cultural learning initiatives could reveal factors and processes underlying intercultural contact and communication emotions.

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