

Understanding the seating patterns in a residence-dining hall: a longitudinal study of intergroup contact

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Using a combination of observational and questionnaire methods, this longitudinal study investigated interracial contact in a university residence dining hall, focusing on the organization of seating patterns. The results showed that informal division by race was extensive, with indices of interaction (xPy^*) and evenness (D) indicating the existence of high levels of racial segregation. Moreover, although they had ample opportunities for regular contact, students' preferences for sitting with same-race peers remained relatively constant across the study period. Their explanations for seating choices emphasised the role of wider friendship patterns as well as the importance of eating with people with whom they felt 'comfortable'.

Keywords: anxiety; friendship; intergroup contact; naturalistic observation; seating; segregation

According to the contact hypothesis, when members of different ethnic or racial groups interact regularly under certain ideal conditions (e.g. equality of status), they tend to develop more positive intergroup relations and attitudes (Allport, 1954). This hypothesis has stood up to over fifty years of testing and has generated a considerable amount of supporting evidence (Pettigrew & Tropp, 2006). Indeed, interventions to promote contact are widely regarded as social psychology's most important contribution to the struggle against intergroup conflict and discrimination.

Several commentators have discussed the potential significance of the contact hypothesis to South African society (e.g. Foster & Finchilescu, 1986; Finchilescu & Tredoux, 2008). As is well known, prior to 1994 relations between different 'race' groups in this country were structured by a system of apartheid, which maintained racial segregation and inequality. Not surprisingly, then, research conducted during this period tended to yield somewhat mixed findings about the role of contact in improving racial attitudes (Foster & Finchilescu, 1986). Since 1994, however, the legal foundations of apartheid have been dismantled and a new democracy installed. The country has undertaken to transform intergroup relations through the introduction of democratic legislation and the promotion of residential, educational and social integration. Perhaps owing to these positive social and political changes, questionnaire surveys conducted in the post-apartheid era have largely supported the contact hypothesis (e.g. Gibson, 2004; Holtman, Louw, Tredoux, & Carney, 2005).

At the same time, research based on naturalistic observation of relations unfolding in everyday settings has complicated this optimistic message (e.g. see Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008; Dixon & Durheim, 2003; Koen & Durrheim (2009); Tredoux, Dixon, Underwood, Nunez, & Finchilescu, , 2005). This research suggests that racial segregation remains widespread in post-apartheid South Africa, even within settings that are supposedly 'integrated'. In the precursor to the present study, for example, Schrieff, Tredoux, Dixon, and Finchilescu (2005), explored seating patterns in a mixed-race dining hall at a local university. Using standard indices of segregation — including indices of exposure (xPy^*) and evenness (D) — they documented high levels of segregation

by race, which were evident both within students' choice of individual tables at which to eat and within the more global territorial organization of the dining hall.

The present research provides a replication and conceptual extension of Schrieff *et al.*'s (2005) study. First, using a longitudinal research design, we explore the temporal stability of segregated seating arrangements, an issue that has been neglected in previous work on informal segregation in educational settings. An optimistic hypothesis, for instance, is that segregation will gradually decline as students have the opportunity to form relationships across racial lines and as the initial salience of racial categories within newly desegregated settings diminishes. This hypothesis was partially supported by Schofield and Sagar's (1977) early study of relations in a school cafeteria in the US, which showed that segregation decreased over time amongst 7th grade pupils (though this pattern did not occur amongst older pupils).

Second, our research explored some of the social and psychological factors that may underlie the 'preference' to maintain racial isolation. Our emphasis here is on students' own attributions about the causes of segregation and, as will become apparent, we focus in particular on the role of friendship formation and intergroup anxiety.

INTERGROUP FRIENDSHIP

The relationship between contact and friendship has become increasingly central in the literature on the contact hypothesis (e.g. Pettigrew, 1997). Indeed, in many senses, relations of friendship epitomise the optimal conditions for contact originally suggested by Allport (1954), increasing the likelihood that positive attitude change will occur. Pre-existing relations of friendship are also, of course, one of the main reasons why people choose to associate with one another in the first place. In everyday contexts, people are often motivated to seek out contact with friends rather than with random strangers or casual acquaintances. As such, one might hypothesize that observed patterns of segregated seating within public settings such as university cafeterias may express the influence of wider networks of friendship choice.

Indirectly supporting this hypothesis is the extensive research literature on social composition of friendship networks. Numerous studies conducted in the US have suggested that such networks are typically characterized by 'racial homophily' (see McPherson, Smith-Lovin, & Cook, 2001 for a review), with cross-race friendships being the exception rather than the rule. In South Africa, too, evidence suggests that cross-racial friendships are rare. In his national survey of the contact experiences of 3,700 South Africans, for example, Gibson (2004) reported that only a small proportion of this country's citizens (e.g. 1.5% of black people and 6.6% of white people) report having more than a 'small number' of friendships across racial lines. This may reflect the role of factors such as spatial proximity, racial prejudice, and actual or perceived similarity.

SIMILARITY

Similarity is not only "believed to be a *major determinant* of interpersonal attraction" (Hallinan & Teixeira, 1987a, p. 1360), but it is also believed to be the basis thereof (Newcomb, 1961). According to the similarity-attraction hypothesis (Aboud & Mendelson, 1996), people often select, as their friends, those whom they share some form of similarity with (see Aboud & Mendelson, 1996). Research has shown that friends tend to possess commonalities with regards to race (ethnicity), gender, age and socioeconomic status (Kupersmidt, DeRosier, & Patterson, 1995).

"It is generally known that students prefer members of their own race as friends than members of another race ... being of the same race is a salient factor to students in their choice of friends" (Hallinan, 1982, p. 59). This prevalence of same-race preference has been found in a number of behavioural studies (Schofield, 1979; Schofield & Sagar, 1977; Silverman & Shaw, 1973). Aboud, Mendelson, and Purdy (2003) investigated whether this preference for same-race individuals was influenced by racial prejudice, such that it instilled a selectivity bias or preference for certain individuals. Results showed that the importance of race in friendship was less attributable to racial prejudice than to the mere desire for similarity.

Perceived vs. actual similarity

About and Mendelson (1996) have reported that perceived similarity might be a greater predictor of friendship than actual similarity. They report that “perceived similarity, being liked, and being different may be more potent selection criteria than actually being similar” (About & Mendelson, 1996, p. 94). Thus, the question posed by the dichotomy is whether in choosing a friend, it is the actual or perceived similarity that the friendship choice is based upon. In selecting a same race friend, there is likely to be the assumption that other factors, such as interests, customs, culture, or background, are also similar.

INTERGROUP ANXIETY

Intergroup anxiety may be defined as “the anxiety that people experience in interactions with members of another group” (Blair, Park, & Bachelor, 2003, p. 151-152). Both the amount of prior intergroup contact experienced, as well as the nature of such contact, helps to determine the level of intergroup anxiety an individual experiences (Stephan & Stephan, 1985; Islam & Hewstone, 1993). In turn, the reduction of anxiety is increasingly viewed as central to explaining how and why contact reduces prejudice (e.g. Turner, Hewstone, Voci, & Vonofakou, 2008). Conversely, intergroup anxiety is also likely to play a role in the reproduction of everyday segregation. Anxiety about the real or imagined prospect of contact with others may result in behaviours such as avoidance, distancing and boundary maintenance (Dijker, 1987; Dijker, Koomen, Van den Heuvel, & Frijda, 1996; Stephan & Stephan, 1985). Thus, a circular process may be set in motion, with a lack of intergroup contact heightening intergroup anxiety, which in turn occasions further avoidance of contact. In our precursor study (Schrieff *et al.*, 2005), we referred to a “zone of comfort” that students seem to prefer to remain within. This ‘zone of comfort’ may just be an alternative formulation of intergroup anxiety.

To sum up, the present study had two aims. First, we aimed to provide a longitudinal exploration of intergroup segregation by systematically observing black and white students’ seating patterns over time in a student dining hall. This enabled us to explore the stability of observed patterns of contact and segregation over time and, more specifically, to test the hypothesis that exposure to racial others in a positive, sociable environment gradually erodes racial segregation. Second, we aimed to investigate students’ attributions about the relationship between seating preferences and factors such as friendship formation and intergroup anxiety or comfortability.

METHOD

The study was comprised of two components: an observational and a questionnaire component.

Participants

The students of two undergraduate, catered residences (one female [FR], one male [MR]) at the University of Cape Town, South Africa, made up the sample for the observational component of the study. A total of 475 students were observed, of which 159 (33.47 %) were black African, 80 (16.84%) Indian, 29 (6.11%) coloured, and 206 (43.37%) white students. One student’s racial description was listed as ‘unknown’. The students of the two residences share a common dining hall.

The first year students from these residences were approached to take part in the questionnaire component of the study. There were a total of 220 first year students, of which 81 (36.80 %) were black African, 36 (16.40%) were Indian, 14 (6.37%) were coloured, and 89 (40.50%) were white students. Of the 220 students, 194 students were approached, 174 (89.7%) of whom agreed to participate. However, only 95 actually completed all three questionnaires, of which 43 (45.26%) were black African, 7 (7.37%) were Indian, 2 (2.11%) were coloured, 4 (4.21%) were Chinese and 39 (41.05%) were white (see Table 1).

Thus, black and white students made up most of the sample. The proportion of white students in the questionnaire sample was highly representative of the total proportion of first-year, white students that have their meals in the dining hall. However, the proportion of black students in the

sample was higher than the actual proportion of the first-year black students that have their meals in the dining hall (36.82%).

Table 1. Race and gender proportions of questionnaire sample

	Black African	White	Coloured	Indian	Chinese	Total	%
Initial sample	81	89	14	36	-	220	
Final sample	43	39	2	7	4	95	
Drop out rate	46.91%	56.18%	85.71%	80.56%	-	56.82%	
<u>Sex of final sample</u>							
Male	12	16	1	0	1	30	31.58
Female	31	23	1	7	3	65	68.42
% of final sample	45.26	41.05	2.11	7.37	4.21		

Ethical approval for both components of the study was obtained from the University of Cape Town's Department of Psychology's Research Ethics Committee. Permission for the study was also obtained from the residence wardens.

Design

The observational component of the study followed methods developed in a previous study (Schrieff *et al.*, 2005).

The questionnaire component of the study took the form of three questionnaires monitoring friendship formations, administered at different times. Thus the study was longitudinal in design. The questionnaires consisted of both closed- and open-ended type responses, providing both quantitative and qualitative information. Data collection for both the components took place over approximately seven months.

Procedure

In the observational component, a similar procedure to that utilised in Schrieff *et al.* (2005) was adopted. The observations were conducted for almost the entire the dinner period, i.e. 17h40 to 19h30, in 13 sessions, scattered over three different months. In each session, the seating patterns were recorded at 10-minute intervals. The investigator carried out these recordings from a balcony overlooking the dining hall. Eight of these sessions were conducted in the first month in order to observe the initial formation of the patterns of seating. The other five sessions were divided into two sets consisting of three and two sessions of observations. These were carried out in March and August of that year, respectively, in order to observe whether the patterns that were initially observed were still evident or whether they had changed.

Participants for the friendship questionnaire component required active recruiting. Four research assistants embarked on door-to-door visits to all the first-year students of the two residences for approximately two weeks, requesting their participation. An incentive of R30 was promised for full participation.

The friendship patterns of first-years were explored by means of three questionnaires, posed as "Adjustment to University" questionnaires. Students were also told that in the questionnaires there would be a particular focus on first-year students' friendships.

The questionnaires were manually distributed to all those who agreed to participate. The agreement was verbal. A checklist was kept of those who agreed to participate. The first questionnaire was issued in the first week of the academic year. Each participant received an envelope containing instructions, the questionnaire and a code name that they were required to use as a pseudonym for the questionnaires. An independent researcher was responsible for the issuing of the code names, to

ensure complete anonymity and confidentiality to the participants. Participants were given approximately two weeks in which to complete the questionnaires. The second and third questionnaires were issued two months and four months later, respectively, following a similar procedure.

Measuring instruments

Map for observations

A simple sketch of the dining hall was used as a map on which to record accurate spatial locations of the students by race (see Schrieff *et al.*, 2005).

Questionnaires

Although the questionnaires included a number of questions relating to students' friendships and adjustment to, and experience at, university, only the questions pertinent to our research objectives will be outlined.

Questions relating to seating patterns

In questionnaire 1, students were asked to describe the proportions (all, mostly, few, none) of same and different race students at the table where they had their first meal in the dining room. In questionnaire 2, students were asked about the regularity of their seating patterns with same race students. The question posed was: *How many of the people that you regularly sit with now are of the same race as yourself?*

Questions relating to intergroup variables

In questionnaire 1, students were asked to rate their previous intergroup experiences collectively (measured on a Likert scale ranging from 1 (extremely positive) to 7 (extremely negative)). This questionnaire also included questions about students' anxiety about living with, working with and being taught by people from different backgrounds. Finally, questionnaire 1 also included scales measuring social distance (adapted from Bogardus, 1925) and affective prejudice (taken from McLaughlin-Volpe, Aron, Wright, & Reis, 2000).

For both the social distance scale, and the affective prejudice scale, four racial groups (black Africans, whites, coloureds and Indians) were presented as target groups. The participants completed these for all groups except their own. For the social distance scale, Cronbach's alpha of 0.89, 0.85, 0.86, and 0.88 were found for the four targets (black Africans, whites, coloureds and Indians), respectively. For the affective prejudice scale, the Cronbach's alpha coefficients were 0.93, 0.89, 0.91, and 0.90, respectively.

In questionnaire 3, students were asked how much contact they had had with people from other race groups at university since arrival (amount of contact) and their description of these experiences (nature of contact).

Questions relating to intergroup friendship and comfortability

In questionnaire 1, students were asked how they decided where to sit for their first meal in the dining hall. This was an open-ended question. They were also asked to estimate the likelihood that they would make same- or cross-race friends using a scale from 0 – 100%.

In questionnaire 2, students were asked how comfortable they were sharing a table with students who were of a different race to them. Students' main friendships made by that time were investigated through an exploration of their three closest friends.

In questionnaire 3, students were asked about the consistency of their seating patterns, specifically whether they sat only with friends. Students were also asked to list factors ranked from 1–10, from most to least important, that they thought determined the seating patterns in the dining hall.

Analyses

For the observational component, headcounts for each session were transformed to standard indices

of spatial variation recommended by Massey and Denton (1988) for the measurement of residential segregation. These included the dissimilarity (D) and exposure (xPy*) indices. The results for both indices range from 0 to 1. However, whereas for D-values 0 represents an unsegregated pattern and 1, a completely segregated picture, scores for xPy* are interpreted conversely. With this index, 0 represents no exposure and hence high segregation and 1 represents a high degree of exposure and hence no prejudice. Monte Carlo simulations were also conducted to test statistical significance.¹ These simulations presented a comparative result that might have been obtained if the patterns were merely random and thus if they occurred by chance (see Dixon & Durrheim, 2003).

Analyses of the questionnaire data were mostly conducted through descriptive methods. Inferential statistics were however computed, where required. These included, for example, a number of correlations, to determine the relationship between the attitudinal variables and a number of other important variables.

RESULTS

Participants — questionnaire component

Owing to the limited number of coloured, Indian and Asian participants completing all three questionnaires, the discussion will be limited to the findings for black African and white students.

Seating patterns and the change/stability thereof

Change/stability

The stability of the patterns of seating is evident in the mean D and xPy* values for February, March and August.

Results for the dissimilarity index (D) show that a segregated spread of seating is evident as early as February (number of observations = 8; $M = 0.895$; $SD = 0.050$) and is consistent for March (number of observations = 3; $M = 0.894$; $SD = 0.118$) and August (number of observations = 2; $M = 0.94$; $SD = 0.085$). These results suggest that a marked uneven, racialised spread of seating forms almost immediately in the dining hall at the beginning of the year and that it is consistent, if not intensified, throughout the year. When considering the range of scores, it is important to note that the lowest D-value is 0.767 and the highest D-value is 1.00, which may be interpreted as “hyper-segregation”.

In spite of slight fluctuations from February to March to August, overall, the scores for the exposure index do not extend beyond 0.091 in any of the three months. The low average xPy* values for February ($N = 8$; $M = 0.037$; $SD = 0.041$) show that there is an early formation of a segregated pattern of seating in the dining hall. The average xPy* values for March ($N = 3$; $M = 0.033$; $SD = 0.043$) and August ($N = 2$; $M = 0.046$; $SD = 0.064$) reflect the stability of these segregated seating patterns among the students later in the year.

Note that all p values for individual D and xPy* results were highly significant with p values < 0.001.

Reported seating patterns (Time 2)

Results show that the majority of participants (59.57%) report that most of the peers they regularly sit with are of the same race as themselves. A further (13.83%) participants report that all of the peers they sit with are same-race peers. 23.4% and 3.19% participants' responses fell in the some and none categories, respectively.

Exploring intergroup attitudes, contact and anxiety

Intergroup attitudes (Time 1)

Racial attitudes were explored using the social distance and affective prejudice scales. For the Social Distance scores, the five response items were scales from 0 to 4, such that a high score (maximum = 20) indicated less prejudice. The mean score for white participants' social distance scores towards

black Africans was 11.05, and standard deviation of 3.98. The mean score for black African participants' social distance scores towards whites was 12.72, with a standard deviation of 4.69. These means did not differ significantly ($F(80) = 1.38, p = 0.32$).

With regard to the affective prejudice scale, here higher scores represent less positive sentiments and greater dislike. The scores on this scale ranged from 6–42, where 6 would represent highly positive and 42 highly negative intergroup sentiments. The mean score for white participants' affective prejudice scores towards black Africans was 16.67, with a standard deviation of 7.19. The mean score for black African participants' affective prejudice scores towards whites was 15.1, with a standard deviation of 6.14. Again, the means for the two groups did not differ significantly ($F(77) = 1.37, p = 0.33$).

Previous intergroup contact experiences (Time 1)

Participants were asked to summarize previous intergroup experiences on a 7-point scale ranging from extremely positive (1), to extremely negative (7). Results show that generally these experiences were mainly positive. The mean rating for the black African participants was $M = 2.54, SD = 1.50$, and for white participants was $M = 2.29, SD = 1.33$. These means did not differ significantly ($F(77) = 1.27, p = 0.47$).

Amount and nature of intergroup contact (Time 3)

The results show that most participants experienced 'a great deal' (65.26%), or at least 'some' (29.47%) interracial contact at university by midyear. Only 5.26% reported that they had experienced 'a little' interracial contact by that time. No participant reported having no intergroup contact with other race groups.

The most common descriptions of the experiences were that these were 'mostly positive' (62.11%). A sizeable number of participants stated that these experiences were only 'somewhat positive' (31.58%). No participant reported that their experiences were 'mostly negative', although 4 (4.26%) participants reported their experiences being 'somewhat negative'. One (1.05%) participant described his/her experience as mixed.

Intergroup anxiety (Time 1)

Whether or not students were anxious about living, working with, or being taught by people of a different race group was also explored among black African and white participants. The results are shown in Table 2.

The social distance and affective prejudice scores of black African and white participants were correlated with the intergroup anxiety variables presented in Table 2. For the anxiety variables, a response of yes was coded as 1 and a response of no was coded as 0. The relationship between social distance and intergroup anxiety was significant only for the black African participants ($p < 0.05$). For each of the situations, whether or not students were anxious about living with ($r = -0.50, p = 0.001$), working with ($r = -0.43, p = 0.004$), or being taught by ($r = -0.46, p = 0.002$) people of a different race group, greater desired social distance was associated with high anxiety. Affective prejudice was not associated with anxiety. Amongst the white participants, there was no association between anxiety and either social distance or affective prejudice.

WHAT IS THE ROLE OF FRIENDSHIP AND COMFORTABILITY IN THE SEATING PATTERNS OBSERVED?

Intergroup friendship and the seating patterns observed

Likelihood of making same- or cross-race friends (Time 1)

When asked to estimate the likelihood (0–100%) of making same- or cross-race friends, estimations were generally higher for making same-race friends. These responses ranged from 0–100%, with a mean of 80.73% and a standard deviation of 21.33%. With regard to the reported likelihood (0–

100%) of making friends from a different racial group, responses ranged from 0–100%, with a mean of 55.37% and a standard deviation of 29.66%.

Table 2. Anxious about living with, working with, or being taught by, people from different backgrounds

	Yes	No	Total
Anxious about living with people from different backgrounds			
Black African	12 (28.57%)	30 (71.43%)	42
White	5 (12.82%)	34 (87.18%)	39
Anxious about working with people from different backgrounds			
Black African	14 (33.33%)	28 (66.67%)	42
White	6 (15.38%)	33 (84.62%)	39
Anxious about being taught by people from different backgrounds			
Black African	11 (26.19%)	31 (73.81%)	42
White	7 (17.95%)	32 (82.05%)	39

The social distance and affective prejudice scores of black African and white participants were correlated with the likelihood of making same- or cross-race friends to investigate whether these attitudes have any relationship to students' choices of friends, respectively. The only significant correlation was between social distance and the likelihood of making cross-race friends among black African participants ($r = 0.36$, $p = 0.017$). Thus, the more cross-race friends they have, the less prejudiced participants are.

Interracial friendships (Time 2)

An important indicator of interracial friendship at university was students' reports of their three closest friends made there. Altogether, out of the 283 friendships reported, only 53 (18.73%) of these friendships were interracial. Only 31 participants reported that at least one of their three closest friends were of a different race and only five participants reported all three friendships as being interracial.

There was also a predominant same-sex trend between both same- and cross-race friendships. In terms of all the friendships (both same- and cross-race friendships), there were 67 out of a total of 283 (23.67%) cross-sex friendships. A comparison of the number of cross-sex friendships among same- and cross-race friends showed similar proportions (cross-race friendships 22.64% and same-race friendships, 23.91%).

The role of friendship in the seating patterns observed

When asked how they decided where to sit for their first meal in the dining hall, a fair number of students ($N = 24$; 25.26%) reported that they went to sit with friends. However, an even greater number of participants merely reported that they went with someone they had previously met ($N = 43$; 45.26%), but did not specify them as friends. Nevertheless, participants reported that friends continued to play an important role in determining where participants sit in the dining hall over the following months. This was evident in participants' nominations of the number one factors that determine the seating patterns in the dining hall. These factors included: Friendship (55), same year of study (10), language (8), religion (8), similar culture (6), race (6), same university subjects (5), similar politics (4), gender (2) and other² (2).

Comfortability and the seating patterns observed

Comfortability was explored at time 2 through investigating how comfortable students were sharing a table with peers who were of a different race, who were of the opposite sex, or who spoke a different language. The scales ranged from 1 (very comfortable) to 5 (not at all comfortable). The mean scores in terms of comfortability in relation to race, gender and language were 1.29, 1.38, and 1.26, respectively. In each case, $N = 94$. Therefore, participants generally report feeling fairly comfortable sharing a table with peers of a different race, of the opposite sex, or those who speak a different first language.

As exploring interracial contact was of particular interest in this study, a further analysis was conducted in which black African and white students' attitudinal scores were correlated with their level of comfortability of sharing a table with students of a different race. All correlations between black African and white participants' attitudinal scores and how comfortable they were sharing a table with students of a different race were highly significant. Correlations between social distance scores and level of comfortability yielded results of $r = 0.34$ ($p = 0.036$) for white participants, and $r = 0.49$ ($p = 0.001$) for black African participants. Correlations between affective prejudice scores and level of comfortability yielded results of $r = -0.54$ ($p < 0.001$) for white participants, and $r = -0.44$ ($p = 0.005$) for black African participants. These significant relationships show that more favourable outgroup attitudes are associated with greater comfortability among different race peers.

Table 3 shows the results for students' reports for the most important factors determining the choice of seating in the dining hall at time 3. Students could select more than one response. Results show that the two predominant categories of responses were that students sit where they feel "comfortable" and with people that they can talk to.

Table 3. Most important factors determining choice of seating

	Black African	White	Coloured	Indian	Chinese	Total
I sit:						
Where I think people will accept me	18	16	1	5	2	42
Where people won't reject me	9	9	0	2	1	21
Where people won't bother me	7	5	0	2	2	16
Where I think I will feel comfortable	39	32	2	6	4	83
With people I can talk to	39	36	2	7	3	87
With people I share courses with	8	10	0	1	1	20
With people I have something in common with	22	18	1	4	2	47
With people who are most like me	8	9	1	3	0	21

DISCUSSION

The contact hypothesis suggests that regular interaction between members of different ethnic or racial groups under certain ideal conditions should promote favorable intergroup relations between these groups (Allport, 1954). It is therefore expected that settings that create the opportunity for such intergroup contact, such as a university and its residence dining halls, would foster improved intergroup relations between the groups (see Buttny, 1999; Schofield & Sagar, 1977). Contrary to this expectation, we found marked segregation in seating patterns, in spite of the opportunity for socially sanctioned intergroup contact. We measured seating segregation using, among other measures, the mean dissimilarity index (D), and found scores of 0.90, 0.89, and 0.94, at three separate times, several months apart, implying hyper-segregation. These findings are not only consistent with the findings of a similar, previous study by the present authors (Schrieff *et al.*, 2005), but since the first measure was taken at the beginning of the academic term, demonstrate that patterns of segregation are set up

rapidly when groups encounter each other. They also demonstrate the consistency of segregated seating patterns over time.

One possible explanation for the pattern of consistent segregation and its rapid onset is that it is the result of a high level of intergroup prejudice. However, we measured intergroup prejudice, and found mean scores on both the social distance and affective prejudice scales that do not suggest high levels of prejudice, and are in fact concentrated around the midpoint mark for both black and white participants. It is possible that participants provided socially desirable responses, though, and this may confound our results. It is also important to consider what Dovidio and Gaertner (2004) refer to as 'aversive racism', that is to say more subtle, less direct, aversive forms of prejudice, which typically coexist with explicit self reports of low prejudice. We do not believe that the results from our attitude and self-report prejudice scales provide a sufficient explanation for the segregated patterns of seating we observed.

In Schrieff *et al.* (2005), friendship and a perceived need for a 'zone of comfort' within same-race groups, were postulated as possible organizing mechanisms of seating patterns in specific student dining halls. We assessed this in the present study by following first-year students over some months and recording friendship choices. We established that students have a marked preference for same-race friends (81.27%), and this finding exceeds participants' initial estimates of how likely they were to make same-race friends (same-race estimated as 80.73%, cross-race as 55.37%). Results also show that most close friendships reported were also predominantly same-sex (76.33%). The finding that these friendships are also same-sex friendships suggest the operation of the similarity-attraction hypothesis (see Aboud & Mendelson, 1996). Thus, the reason students are sitting with same-race friends may be motivated by factors other than intergroup prejudice and, in particular, students may be displaying a general attraction towards 'similar' individuals across many factors, that happen to include race, as a simple consequence of the demography of South Africa.

The literature also suggests that similarity on the basis of race may lead one to perceive or expect similarity on a range of other factors. In fact, the perception of similarity may be stronger than actual similarity (Aboud & Mendelson, 1996). In other words, students may have a stronger preference for same-race individuals because of a perceived similarity and understanding across a range of other factors like interests, customs, culture, or background. This perception would also support the finding that some students want to sit 'where they feel accepted' (44.21%) or 'with people they have something in common with' (49.47%). The perception of similarity could facilitate these feelings of acceptance or commonality.

Our findings in this study support the claim we made in an earlier study, namely, that 'comfortability' may be an organising factor in student dining halls (Schrieff *et al.*, 2005). In fact, the students in the present study themselves report that it is the most important factor determining where they sit in the dining hall.

We found a significant relationship between prejudice as measured by the social distance scale, and greater perceived comfortability with individuals of other races, for both white and black African students. The converse of this finding, by implication, is that those students with more prejudice experience less perceived comfortability within mixed-race groups, and consequently avoid such interactions, and this is easily interpreted within an intergroup anxiety framework (Stephan & Stephan, 1985). Our results did demonstrate a significant relationship, but only among black participants, between intergroup prejudice and whether or not students were anxious about living with ($r = -0.50, p = 0.001$), working with ($r = -0.43, p = 0.004$), or being taught by ($r = -0.46, p = 0.002$) people of a different race group. Contrary to the expectation implied by the segregated pattern of seating, the majority of students report that they have either a great deal or some intergroup contact, and that this contact is mainly positive. In accordance with the intergroup anxiety literature, this should result in low levels of anxiety, facilitating greater levels of intergroup contact (Stephan & Stephan, 1985; Islam & Hewstone, 1993; also see Stephan & Stephan, 1989), and it is worth explicitly noting that this is not what we appear to find. Again, we cannot dismiss the influence of

social desirability on self-report — when people report contact, they could well be reporting more contact than they actually have, as it is perhaps more socially desirable in South Africa to be seen as having intergroup contact. It may be the case that participants equate perceived lack of contact as perceived prejudice, and wish to avoid such an inference. This is in line with the meta-stereotype literature (e.g. Finchilescu, 2005).

Although students report that they are comfortable sharing a table with individuals of other races, this is inconsistent with the seating patterns observed, and their own report that they sit where they feel comfortable, which appears to be mainly with same-race peers. Participants report that they would be comfortable sharing a table with students from other race-groups, but our observations and their own estimation of the factors that determine seating behaviour (friendship, same year of study, language, religion, similar culture, race, same university subjects, similar politics and gender), show that they find comfortability in same-race groups.

One of the limitations of the present study is that we only measured intergroup attitudes (e.g. prejudice) at one point in time, and multiple measures of these, at all three data collection points would have strengthened our results. However, this was not our main focus, which was instead to track the consistency and integratedness / segregatedness of seating patterns.

We also acknowledge that the questionnaire data we collected are only representative of first-year students in the residences in question, and that there may be other reasons, or factors, reported by other, older students, who have their meals in the same dining hall. We are also aware that allocation of students to residences was not done randomly at the time of the study — in fact, the residences investigated in this study are considered premier residences at the university — and may well not be representative of behaviour and attitudes in other residences at UCT. We should note, though, that the segregated pattern of seating we observed in the present study is very similar to that we reported earlier (Schrieff *et al.*, 2005). Further investigations, which improve on these limitations, and test the effects of perceived similarity and a desire for in-group comfortability, as suggested earlier, are required.

Different caveats and qualifications are in order, in terms of the general implications of our findings, which may seem somewhat negative. Although the level of intergroup friendship reported in the study is skewed towards same-race friendships, 18.73% of all new friendships reported were cross-race. In other words, although comparatively less frequent, cross-race friendships were far from absent. It should be noted that this study was conducted 11 years after independence, and that South Africa was characterised by extreme, legislated racial segregation for approximately 340 years prior to independence. Many students come to university from home environments and areas that are still highly segregated, if not legally so. It may strike some as unsurprising, then, that continuing societal or macro segregation is replicated or mirrored in micro-level settings.

Our results show that in a setting that might be considered ideal for fostering positive interracial contact over time, there were instead consistent and marked patterns of segregation. These, and other results, lend support to the criticism that the contact hypothesis is perhaps somewhat rarefied and utopian (see Dixon, Durrheim, & Tredoux, 2005). There is a need to study contact not only through self-report measures, or through experimental manipulations, but also by examining its natural manifestations. The hope in such an endeavour is to uncover the factors that incline people away from intergroup contact, and towards segregation, in very ordinary, everyday settings.

NOTES

1. Simulations were set at $N = 2000$.
2. Here the two responses included as 'other' refer to 'intellectual ability' and "If I want to be alone, I look for an empty table".

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