

**Crossing life domains:  
Can workplace affirmative action achieve social peace in urban neighborhoods?**

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Abstract

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Recent events in New Orleans and Paris have brought the relationship between the character of urban neighborhoods and social isolation back into focus. Renewed attention is being directed towards creating socially-integrated residential patterns as a means of reducing the chances of wholesale abandonment (in the former case) and collective violence (in the latter). Relying on recently collected original data on urban social networks in Singapore, we argue that 1) cross-cutting identities are much more important in social integration than the existence of identity markers *per se* (and therefore cultural assimilation is not necessary for integration), 2) residential integration is not an efficacious means of producing inter-group social ties (and therefore that housing policy is not the best means of achieving cross-group interaction), 3) even when there is a low level of residential segregation, most inter-ethnic group social ties originate in the work place, and 4) inter-ethnic ties among occupational equals are stronger and more multiplex than ties among those in different types of positions. This research also adds to our knowledge about Muslim/non-Muslim relationships.

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Hurricane Katrina's aftermath left thousands of the hardest hit, mostly poor and mostly minority, stranded in New Orleans with no way to get out. Their plight was the direct result of a well-documented failure on the part of local, state, and national agencies to coordinate and carry out rescue and relief operations. Their predicament may have also been the indirect result of a civil society that was weakened by urban development patterns that segregated people by race and class, thereby placing people out of reach of spontaneously-occurring neighbor-to-neighbor help. A Brookings Institute report found that many U.S. cities have a level of segregation sufficiently large to make a repeat of the post-hurricane New Orleans experience likely (Berube and Katz, 2005). They, therefore, recommend reconstructing cities with increased attention being paid to creating "neighborhoods of hope."

Beginning on October 28 and continuing almost daily for over two weeks, minority youths in France gathered in streets, threw stones, and burned automobiles resulting in the largest collective street action since the 1968 student rebellion that almost toppled the government. In contrast to 37 years ago, the street action has attracted little praise. Several commentaries blame the Paris riots on a le Corbusier-inspired architecture comprised of tall apartment blocks (Caldwell, 2005) and on incompatibilities between Muslim and Western cultures. The riots have led to a good deal of soul-searching but, so far, comparatively few steps towards amelioration.

In both cases, the explanations and recommendations, such as they are, focus directly on residential neighborhoods and end up with a similar imperative: create residential integration. Arguing that a focus on the character of residential neighborhoods to the exclusion of other arenas of interaction and a direct policy concentration on cultural differences and reconciliation

may be counter-productive, we wish to present an alternative view that suggests that social relationships formed in the workplace have a more far reaching impact on social integration. This view is not fully proven theoretically nor can it be fully demonstrated with our data but it is solidly rooted in social science research. Urban sociologists have been looking too close to home for solutions to the problems of social cleavage.

On the basis of a review of the theoretical literature on social relationships and a unique set of data on the opportunities for interaction and the relationships formed, we argue that:

- 1) Cross-cutting social identities, not neighborhood design, prevent tensions and strains from erupting into either wholesale abandonment of the helpless or violent social conflict. The development of cross-cutting identities does not depend upon the, in many cases undesired, rejection of ethnic identity but it does reduce the salience of social divisions.
- 2) “Neighbors” have largely lost their distinctive social support function in cities. Residential integration is therefore not an efficacious means of achieving social integration – either within or across group lines.
- 3) Social contact can occur in many domains of social life, however, and, since work-based relationships are built on functional interdependence in addition to spatial opportunity, they form the primary arena for meaningful contact across ethnic groups in contemporary society.
- 4) Workplaces are often segregated and, even when not, ethnic divisions of labor often segregate people into different occupations. A managerial mandate is often needed to create the conditions for the formation of relationships that soften ethnic boundaries.

In other words, we argue that the social relationships among equals underlying the cross-cutting identities that permeate group boundaries are need, rather than opportunity, based and that the locus of such relationships has shifted from the residential neighborhood to the workplace. Therefore, policy should concentrate on creating the conditions for the formation of those relationships.

In order to build our case, we look not to either of those two unfortunate cities but to a third, Singapore, which is often credited (at least by its own government) with having achieved a

high degree of ethnic peace. Singapore, where 88 percent of the resident population live in public housing, has mandated a high degree of residential integration but spatial proximity has not resulted in social interaction. Using unique data on the character of social networks and on the ethnic composition of workplaces (described in the Appendix), we present evidence on the role of integrated workplaces in creating the type of cross-cutting social ties that have been demonstrated to prevent collective isolation and violent group conflict.

### **The Singaporean context**

Singapore is a multi-ethnic community, just slightly smaller than the Atlanta metropolitan area, with a relatively high degree of social peace and inter-group amicability. The extent of social ties and their closeness across ethnic groups is, nevertheless, a major concern in a diverse society such as Singapore. Approximately 77 percent of the Singaporean resident population (citizens and permanent residents) are Chinese, 14 percent are Malay, 8 percent are Indian, and 1 percent are “other.” Objective measurement is difficult but it is probably fair to say that Singapore is heavily racialized (behaviors and characteristics are routinely imputed to ethnic background) but not excessively racist (expressions of out-group disdain are modest).

Singapore supports a large foreign-born population. Approximately one-third of the total population was not born in Singapore and many of the recent migrants are working age adults who came to fill Singapore’s labor force needs (Department of Statistics, 2001). Some of these migrants are “non-residents” (approximately 19 percent of the total population) but many are permanent residents or citizens.

Residential mobility among those occupying public and private housing has been quite high (HDB, 2000a). Approximately 60 percent of household heads changed residence between

1990 and 2000 (either by moving or creating a new household). Due to the nature of the Singaporean housing market, many of these movements imply a change in neighborhood and Singapore suburbanized to a great extent (still largely in apartment blocks) during the 1990s. A shift away from mid-rise “slab blocks” with a dozen or more apartments per floor connected by an external gallery to newer high-rise “point blocks” with 4-6 apartments per floor might remove much of the physical focus for socializing. Indeed, the Housing Development Board (2000b) has registered a marked decline in neighboring which has (again) touched off concerns about community and the level of social integration.

### **Cross-cutting social identities and the salience of group boundaries**

Ideologies about “racial,” religious, and language identities permeate Singapore society. Hewitt (2000) asserted that to have a social identity is to resemble and feel an affinity or at least a sense of attachment with an identifiable set of people. Stryker (1994) argues that identity is situated in social contexts. Identities exist insofar as persons are participants in structured social relationships and identity theory investigates the relationships between concepts of self, social relations, and role performance (activity). Although there can be much discussion about the direction of causality between the elements of identity theory, a) sentiment, b) social interaction, and c) activity are linked.

To give an everyday example, it is the common activities with colleagues or family that leads to the social interaction which creates the feeling of “we-ness” at work or within a family. It is the common activity that enacts the family and without that activity and interaction, an identity as a family member would have little significance. Daily activity with colleagues creates a university. Similarly, when a person visits a national shrine – a museum or a site of

national pride – that person can communicate the experience to others and thereby symbolically assert membership in the nation. Focused activity leads to social interaction and the development of sentiment (Feld, 1981; Homans, 1951). Commitment to an identity implies interactional commitment (relationships) and affective commitment (Stryker, 1994).

The basic understanding of identity just outlined is a good, common sense starting point but, as Kluckhohn and Murray (1948) have argued, “Every man is in certain respects, a) like all other men, b) like some other men, and c) like no other man.” That is, identity is intrinsically associated with all the joinings and departures of social life. To have an identity is to join with some and depart from others (Stone, 1962). Much of the time, discussions of identity focus on the “joinings” and place the “departures” in the background. Calhoun (1994) felt a need to assert, “Plurality is basic to the human condition. We are distinct from each other, and often strive to distinguish ourselves further.”

Kluckhohn and Murray’s formulation implies a multiplicity of identities – each linked with different sets of individuals who are not all tied to each other – create the individual in the modern sense (Simmel, 1971). Individuals emerged as personal social relations became progressively less immersed in a single set of people. It may sometimes be possible to arrange these multiple identities in a hierarchy of salience. Some identities may be mobilized only in very specific situations; others may be more broadly relevant. Stryker (1994) asserts that the greater the commitment premised on an identity, the more extensive and/or intensive the network of relationships into which one enters by virtue of a given identity will be. The stronger the social relationships, the higher that identity will be in the salience hierarchy.

An example of the varying salience of identities emerges from the research on localism, nationalism, and cosmopolitanism (Deutsch, 1966). Figure One illustrates a stylized

representation of identity salience for an individual. Since identities are supported by interaction and mutual activities, a salient identity, such as implied by Point C in the figure, implies a high level of both. A less salient identity, such as implied by Point B, would imply less interaction. The degree to which identity salience declines could be dramatic or gradual. A salient identity implies a firm boundary of inclusion and exclusion in activities and interaction; a salient national identity implies the relative absence of internal parochialisms and a low level of trans-national affiliations. The diminished salience of ethnic identities implied by assimilation entails reduced common activities and decreased interactive commitment.

(Figure One here)

The symbolic interactionist dictum that the “self is a mirror of society” implies that the existence of multiple identities could lead to tension within individuals – much as there are sometimes tensions within society. Not only the content but the pattern of intersection between the multiple identities is important in creating and straining national identity. In extreme cases, the multiple identities could either completely coincide or they could cross-cut.

Cross-cutting affiliations affect personal behavior and cognition. Such affiliations inhibit individuals from choosing sides and push them to minimize the importance of conflictual issues (Lazarsfeld, Berelson, and Gaudet, 1948). Further, consistent with both social identity theory (Tajfel and Turner, 1986) and self categorization theory (Turner, 1987), cross-categorization reduces perceived differences between groups and of perceived similarities within groups whether examining minimal groups (Deschamps and Doise, 1978; Vanbeselaere, 1987) or salient demographic categories (e.g., Brewer, Ho, Lee, and Miller, 1987; Hewstone, Islam, and Judd, 1993).

Much of the discussion about identity focuses on the individual. But, multiple individual identities have implications for collectivities. The possibilities range from tight inward-looking cliques possibly created along family lines and forming what may be termed a cellular society to somewhat wider social circles that perhaps unfold along ethnic and class (or other) lines forming a society with identifiable columns (Lijphart, 1977) to social bonds that cross-cut such divisions to create a loosely but unmistakably linked whole (Wellman, 1999). (See Figure Two for schematic representations of several possibilities.) Such crosscutting ties help allow individuality to develop while creating unity (Simmel, 1955).

(Figure Two here)

The extent to which several dimensions of social stratification coincide influences cross-national variations in the level of societal conflict (Lenski, 1966). Cross-cutting lineage and residence patterns (e.g., patrilineal descent and matrilocal residence) lead to a lower level of internal conflict than coincident (e.g., patrilineal descent and patrilocal residence) patterns (Eggan, 1937; Evans-Pritchard, 1940; Murphy, 1957; Paige, 1974), possibly because cross-cutting affiliations inhibit the formation of coalitions (Flap, 1988). Further, the degree to which social fault lines coincide may be more important than the magnitude of the divides per se in understanding such issues as whether oppositions develop over issues of cultural identity (Lipset and Rokkan, 1967) and the prevalence of industrial conflict (Kerr and Siegel, 1954).

In sum, the existence of multiple identities can either separate groups into ever smaller factions – creating rifts and hampering the emergence of a coherent whole – of multiple identities can link people together even as it individualizes because the web of affiliations is widened. In the latter case, identities can not be clearly ordered with respect to salience and a stable overall identity can be maintained. The basic thesis is that the strength of a common

Singaporean identity depends upon the total pattern of identities among persons, not only the strength of feeling within individual persons.

In the case of cross-cutting identities, the interests of each valued identity compete for a person's attention. Competing interests arise when individuals owe loyalty to more than one group and no clear ranking of loyalties exists (LeVine and Campbell, 1972). Individuals are then inclined to find novel ways of satisfying both loyalties, rather than choosing among them. Cross-cutting identities give individuals the motivation – because they have no interest in divisiveness – and skill – because they result in overlapping group memberships – to blur boundaries.

### *Evidence from Singapore*

Language is an important factor in group formation. To a large extent, it determines which television shows will be watched, which music will be listened to, and which people will be spoken to. Singaporeans are frequently categorized by ethnic group and are required to learn a “mother tongue” which is linked to the group in school. (Many Chinese and Indian cannot speak their “mother tongue.”) Table One shows language use by ethnic group in 2000. Almost every Singaporean is literate in at least one language. Many are bilingually literate. Among the Chinese, 51.6 percent are bilingual. The Chinese, however, are sub-divided into dialect groups and clans. The salience of such identities seems uneven with Cantonese being held to be the group most attached to their dialect. Among the Malays, 78.2 percent are and among Indians, 69.6 percent are bilingual. The combination of languages is almost always “mother tongue” plus English. Almost all Malays speak Malay. Thirty-eight percent of Malay university graduates speak English in the home.

(Table One here)

Language reinforces the ethnic identity of Malays; almost all Malays are literate in Malay. No other ethnic group shares such a high level of literacy in a common language. Such a coincidence of social divisions tends to accentuate group boundaries. Chinese are split. Substantial numbers of Chinese do not share a language. The terms English-educated and Chinese-educated remain meaningful today and the diversity of language use tends to reduce the salience of ethnic boundaries for Chinese compared to what it would be if they all spoke a common language.

While few Singaporeans were active in religiously-based voluntary service, a large majority identify with a religion. Table Two shows information on the religious affiliation of Singaporean citizens and permanent residents aged 15 and above. The upper panel of the table indicates that there is no majority religion, preventing the emergence of a de facto national religion, but that Buddhism is the largest single identification. Islam is the second largest religion. As with language, religion and ethnicity almost completely coincide for Malays but a diversity of religious affiliations work against the emergence of strong ethnic identities for Indians and Chinese. Almost all of those claiming no religion are Chinese.

(Table Two here)

The second panel shows how religion and language groups intersect. Although Christianity is the main religion of the English-speaking population, other language communities are also represented. Similarly Buddhism has an appeal to members of several language groups and not all adherents of Hinduism are Tamil speakers. Even Islam claims a small number of non-Malay speakers. Such cross-cutting attenuates the sharp religious factionalization found in some countries.

The third, and last, panel of Table Two shows the adherents of each religion by housing class. Housing is a frequently used proxy for income and social class in Singapore. With roughly equal representation in each category, Buddhism is the least class-based religion in Singapore. Christianity approaches Islam's level of class relatedness – but in the opposite direction. The representation of Christians among private sector dwellings is five times as high as it is among residents of one and two-room HDB flats. With a representation among residents of one and two-room HDB flats eight times as high as the representation among private sector dwellings, Islam is the religion most associated with class. Buddhism acts as a class-spanning force in Singapore while Islam and Christianity tend to reinforce class divisions. While Christians tend to share some characteristics with those of other religions, Moslems tend to be differentiated by ethnicity, class, and mother tongue. In our network data, sharing a religion significantly increases ties across ethnic lines.

### **Parallel lives: Social segregation with spatial integration**

Residential segregation in Singapore is relatively low with an index of dissimilarity of 23.4 in 2000 for the two major ethnic groups, Chinese and Malays comprising roughly 77 percent and 14 percent of the total resident population respectively. (Using districts averaging 95,977 each; using sub-districts averaging 23,819 each, the measure is 26.9. Eight percent are Indian, and 1 percent is “other.”) Although the spatial units used are not comparable, the index of dissimilarity for blacks and whites in Atlanta was 68.8. (Atlanta's index of dissimilarity is itself moderate by American standards which range from a high of 87.9 for Gary IN down to 31.7 for Jacksonville NC.) Singapore's low level of residential segregation has been achieved, in part, because 88 percent of the resident population lives in high-rise public housing that

mandates ethnic integration, sometimes down to the level of the housing block. Singapore differs from many U.S. cities in that walking in neighborhoods to do shopping or run other errands is common. The use of public transportation is common. Residential proximity therefore implies opportunity for social contact to a far greater degree in Singapore than it would in the United States. Moreover, local residence committees frequently organize neighborhood events promoting ethnic integration.

It therefore should come as a theoretical surprise to see, as Table Three shows, that ethnic groups remain remarkably separated despite the physical proximity of persons in the various ethnic groups. Over 98 percent of the persons named in reply to a series of name-generating questions (the sample and data are described below) by ethnic Chinese respondents were also ethnic Chinese. For Malays, the second largest ethnic group in Singapore, 90 percent of those named in response to those questions were ethnic in-group members.

(Table Three about here)

Once the respondents were probed (and sometimes extensively prodded) for contacts, approximately 50 percent could name at least one person in the rotating ethnic group specified by an interviewer, with ethnic Chinese being less likely to name minority group members than minority group members being able to name members of other groups. Singaporeans appear to live in inter-penetrating but separate and possibly unequal worlds despite occupying the same physical space.

### **The workplace as a focus for sociality**

Among a sample of the 7414 alters named in a survey of 1143 Singaporean social networks, only seven percent of the relationships originated in the neighborhood. After the

family, the workplace is the largest single locus for the formation of new relationships. Even among those who would be asked to watch over the house while the respondent was away, family members were more highly represented than neighbors. Neighbors appear to have lost their distinctive function as the light-duty social support of first result (Litvak and Szelenyi, 1969). This should not be surprising since most of our lives, certainly among Singaporeans, is not spent outside the home but in the neighborhood. (Data from a time use study of Singaporean public housing residents indicate that only 9 percent of non-sleeping, non-working time is spent in the neighborhood.) Other domains of social life, primarily work, have increased in importance as sources of social ties.

### **Bridges at work**

Fully three-fifths of inter-ethnic friendships originated in the workplace, five times as many as originated in the neighborhood. Given that the workplace is not only the major locus of relationship formation in many contemporary societies but the origin of social relationships that span ethnic boundaries, the composition workplaces and the conditions of interaction take on a wider significance. Despite sharing a common language of business and a common education system, ethnic groups remain segregated in the workplace with all groups sorting themselves out into sometimes ethnically homogenous social worlds. The degree of over-representation compared to a random allocation baseline is highlighted in Table Four.

(Table Four about here)

Considering the degree of segregation, the number of relationships across ethnic groups is substantial. The workplace may generate friendships at a faster rate than other loci of interaction because work takes up a large proportion of available adult time (approximately 14

percent in the Singapore time use sample) and because the relationships formed are more likely to be rooted in interdependence. Neighborhood composition policies rest on an assumption that opportunity leads to interaction which in turn leads to “liking” relationships (Festinger, Schachter, and Back, 1963; Homans, 1961). Relationships founded upon mutual dependency and exchange are stronger than those based on convenience (Blau, 1964; Coleman, 1990). Social (secondary) relationships at work often emerge in order to protect basic interests (Homans, 1951).

While interaction across ethnic boundaries can hardly be avoided in contemporary Singapore, Allport (1954) held that the positive effects of inter-group contact occur in situations marked by four key conditions: equal group status within the situation; common goals; inter-group cooperation; and the support of authorities, law, or custom. These conditions may not often occur spontaneously in Singapore but, when they do, there is a substantial effect on the occurrence of relationships that cross ethnic categories. Exposure to those in other ethnic groups in the residential neighborhood does not increase inter-ethnic ties. Exposure at work is the largest single factor in reporting an inter-ethnic tie.

## **Conclusion**

A society is more than a symbolic (Hunter, 1974) or imagined (Anderson, 1983) community. A society also consists of sets of actual social relationships wherein tangible and intangible exchanges take place. Some of these relationships are linkages of material and functional interdependence, such as those with the grocer and the bus driver (Hawley, 1986). But such subjective identities and detached interdependencies may not be sufficient to create and maintain a community (Blau, 1977). Social integration (the degree to which an individual

experiences a sense of belonging to a collectivity) depends also upon the sum total of interpersonal relationships.

The United States and much of Europe and Asia have experienced increases in the demographic diversity of their populations (DeVita, 1996; Pettigrew, 1998). That diversity can either create serious cleavages that threaten social welfare and social peace, as it recently did in New Orleans and Paris, respectively, or it can actually be a factor contributing to overall integration. Because individuals tend to associate more readily with those who are in some way like themselves than those who are not (Newcomb, 1961; Byrne, 1971), there may be strong pressure for social homophily, or similarity, within neighborhoods, within leisure organizations, and within work organizations (Tomaskovic-Devey, 1993). Attitudes, experiences, and beliefs appear to be closely tied to demographic attributes (Burt, 1981; Jackson, 1992).

Workplaces have become the primary locus of meaningful social contact outside families. Given the pressures towards homophily, Tsui, Egan, and O'Reilly (1992) suggest that demographic homogeneity within organizations will minimize interpersonal conflict thereby increasing the attachment of employees to their employers (Mowday, Porter, and Steers, 1982: 2) required by contemporary management practice. In fact, some cultural control strategies rely on such homogeneity, especially of gender and ethnicity, among certain classes of employees to build a sense of common purpose (Kanter, 1977a), endangering the workplace's possible role in community formation.

Demographic categories are not fixed in their salience, however. Under some conditions, the pressures for homophily can result in the willful accentuation of group differences and boundaries can be elevated (Kanter, 1977b). Serious divides may emerge even between those with seemingly similar cultures (O'Grady and Lane, 1996). These divisions can be attenuated,

however, by reducing the degree of coincident categoric boundaries. The several attributes of individuals create a web of group affiliations that produce an intricate network of partly overlapping social affinities that ameliorate divisions (Blau, 1977).

Our empirical analysis does not fully demonstrate the claim that workplace affirmative action results in social peace. Longitudinal studies including multiples cities would be required for that. Moreover, ostensibly a meritocracy, Singapore workplaces are far too segregated on average to have a pervasive effect. Nevertheless, a large literature spanning several fields finds cross-cutting relationships to build cohesion and channel social conflict. Our unique dataset, including information about social relationships across key life domains and the demographic composition of key domains demonstrates that residential integration does not produce inter-ethnic ties but workplace integration does.

For many sociologists, from those connected with the early Chicago school and human ecology up until the present day, spatial integration has been an indicator of social assimilation. Urban sociologists often claim that spatially integrated neighborhoods create socially integrated communities that allow economic opportunities and cultural values to diffuse. Accordingly, one of the tenets of housing policy (if not always practice) in the U.S. and elsewhere has been to encourage residential integration as a means of nation-building, writing equal opportunity clauses into law and sometimes even mandating quotas of socially-recognized ethnic and racial groups. We find that, however desirable in its own right and however useful as an indicator of social assimilation, residential integration is not an effective policy tool for achieving social integration.

## **Appendix: The survey sample and the measurement of social networks**

A stratified random sample of 1,143 working age adult Singaporeans between the ages of 25 and 55 was asked about their social relationships in face-to-face interviews. The sample is approximately evenly split between males and females and approximates the age and class structure of the resident population as measured by education, occupation, income, and housing. Minority groups (Malays, Indians, and immigrants) were over-sampled to yield sufficient number of cases in those population categories, allowing a focus on the inter-ethnic integration between the two major ethnic groups and between the native-born and immigrants. The lower age bound was chosen because by then almost everyone has completed schooling and assumed an adult role. Approximately, 35 percent of young Singaporeans (25-34) have post-secondary education and since males need to perform 2½ years of National Service, it's not unusual for undergraduates to be in their mid-20s. The upper bound was chosen because after that age, some people enter retirement (until very recently, 55 was the official retirement age in Singapore) and their personal concerns and socializing patterns change accordingly. Among the 30-34 age-group, 40 percent of males and 26 percent of the females are unmarried. Since many adults live with their parents (approximately 88 percent of the population lives in public housing [HDB] and single adults below the age of 35 are barred from purchasing those homes), a Kish grid system was used to select the adult in each sampled household to interview. Approximately four-fifths of the sample were "attached" and approximately 70 percent had at least one child.

The measurement of social networks is critically influenced by the character of the questions used to generate the names of those with whom the survey respondents have a relationship (Ferligoj and Hlebec, 1999; Straits, 2000). Networks of intimates, e.g., core discussion networks (Marsden, 1987) or "best friends" (Laumann, 1973), tend to be fairly homogenous. Homogenous networks of intimates do not imply an absence of real social integration because intimates typically differ markedly from the nearly 1,000 names many can name as being in their social network (Boissevain, 1974).

A technique has been developed for capturing relationships that are of moderate strength and closeness across several domains of social life (Hannerz, 1980). Name-generating questions designed to tap relationships centered on work/career, family, and hobby (Fischer, 1982) and those intended to measure the extent of social support (Wellman, 1979) were supplemented by position-generating questions (Lin and Dumin, 1986) in order to gather information on relationships that are not so intimate as to be immediately volunteered. (This strategy is often used on market research questionnaires: "Tell me your three favorite brands" ... followed by "Have you ever used ..." and a list of the brands not named.) The characteristics of the persons and relationships resulting from the probing, position-generating questions (e.g., "Do you know any Malays?") can then be compared to those resulting from the name-generating questions (e.g., "Who would you ask to look after the house while you were away?"). While time consuming, this methodology produces richer information than other techniques of measuring inter-group friendship (e.g., Smith, 2002). A list of the name- and position-generating questions used in the survey is contained in an appendix. For most of the analyses in this paper, the network alters (except for the results of the ethnic probe) have been aggregated.

Inter-ethnic ties are unlikely to be as close as those with immediate family but moderately-strong ties are nonetheless significant. By comparing the degree of homophily between respondent and named alters along several dimensions and the characteristics of the relationships among ethnic in-group members and out-group members, the research will more completely assess the degree of social separation between ethnic groups.

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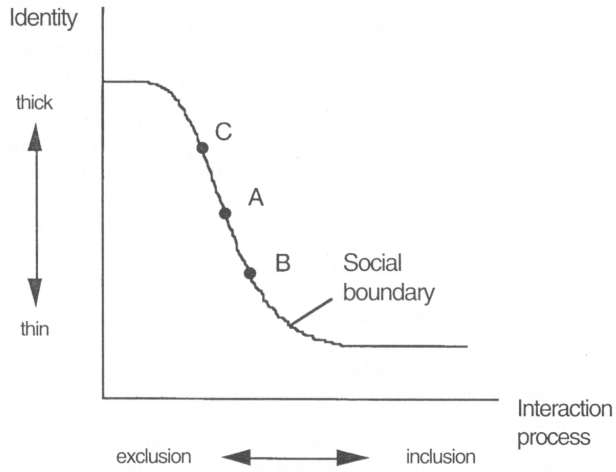
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Figure One

## Boundary-mediated identity trade-off

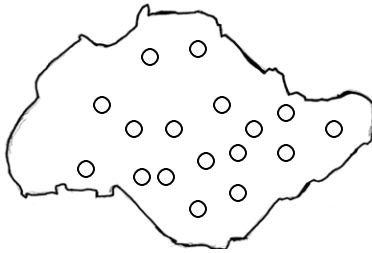


Source: Cederman (2001)

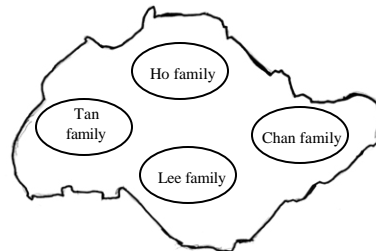
Figure Two

## Schematic representations of social integration

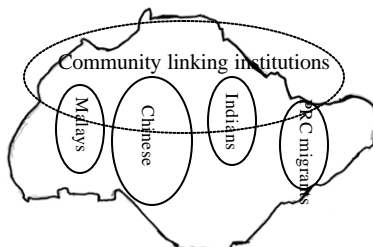
A nation of strangers



Cellular society



“Column” model



Boundaries cross-cut

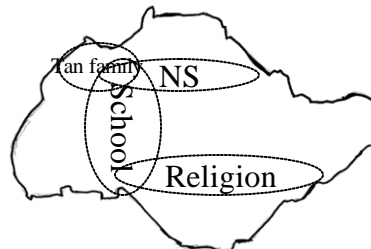


Table One

Literacy by ethnic group

	Total	Chinese	Malay	Indian	Others
Language					
English	70.9	67.6	79.7	87	90.4
Chinese	64.7	82.2	0.3	0.7	5.9
Malay	16.8	2.8	97.3	24.9	26.8
Tamil	3.8	0	0.1	51.3	0.3

Source: "Literacy and language." Advanced Data Release, No. 2, Singapore Census of Population, 2000.

Table Two

Resident population by religion and ethnic group  
(aged 15 and over)

	Total	Buddhism	Islam	Christianity	Taoism	Hinduism	Other Religions	No Religion
Number	2,494,630	1,060,662	371,660	364,087	212,344	99,904	15,879	370,094
Per Cent	100	42.5	14.9	14.6	8.5	4	0.6	14.8
Chinese		53.6		16.5	10.8		0.5	18.6
Malays			99.6				0.4	
Indians			25.6	12.1		55.4	6.3	0.6

Religion of Singaporean Residents  
(by language group)

		Buddhism	Islam	Christianity	Taoism	Hinduism	Other Religions	No Religion
English	100	24.8	7.1	39.8	2.2	5.4	1.5	19.2
Mandarin	100	60		8.3	11.2		0.2	20.3
Chinese Dialects	99.9	61		9.9	15.5		0.2	13.3
Malay	99.9	0.2	98.8	0.7		0.1		0.1
Tamil	100	0.1	17.9	6.7		75	0.1	0.2
Others	100	10.3	16.3	11.1	0.5	43.6	14.7	3.5

Religion of Singaporean Residents  
(by housing type)

		Buddhism	Islam	Christianity	Taoism	Hinduism	Other Religions	No Religion
HDB 1-2 Rooms		41.8	23.7	6.8	11.8	5.2	0.4	10.5
HDB 3 Rooms		46.3	16.7	9.7	10.5	3.9	0.5	12.5
HDB 4 Rooms		46.3	17.4	10.2	9.8	3.9	0.5	11.9
HDB 5 Rooms or Executive		39.5	14.3	17.4	6.4	4.2	0.8	17.4
Private Flats & Houses		30.1	2.8	34.3	4.2	3.6	0.9	24.2

Source: "Religion." Advanced Data Release, No. 2, Singapore Census of Population, 2000.

Table Three Ethnic group of network alters chosen in response to a set of name-generating questions by the ethnic group of the respondent

(unit = alter, not respondent)

Repondent's ethnic group		Alter's ethnic group								Total
		Chinese	Malay	Indian	Others	Eurasian	Asian	Caucasian	Refused	
Chinese	number chosen	4567	31	29	1	6	8	9	1	4652
	percent of alters	<b>98.17</b>	<b>0.67</b>	<b>0.62</b>	<b>0.02</b>	<b>0.13</b>	<b>0.17</b>	<b>0.19</b>	<b>0.02</b>	100
Malay	number chosen	82	1054	29	0	3	0	2	0	1170
	percent of alters	<b>7.01</b>	<b>90.09</b>	<b>2.48</b>	<b>0</b>	<b>0.26</b>	<b>0</b>	<b>0.17</b>	<b>0</b>	100
Indian	number chosen	99	88	614	0	4	2	0	0	807
	percent of alters	<b>12.27</b>	<b>10.9</b>	<b>76.08</b>	<b>0</b>	<b>0.5</b>	<b>0.25</b>	<b>0</b>	<b>0</b>	100
Combined	number chosen	4748	1173	672	1	13	10	11	1	6629
	percent of alters	<b>71.62</b>	<b>17.69</b>	<b>10.14</b>	<b>0.02</b>	<b>0.2</b>	<b>0.15</b>	<b>0.17</b>	<b>0.02</b>	100

tentative results

TableFour Ethnic composition of immediate co-workers by ethnic group of the respondent

Respondent's ethnic group			Ethnic composition of immediate work group						
			Singaporen			Foreign-born			
			Chinese	Malay	Indian	Chinese	Indian	Other	
All	# of respondents	701							
	mean # enumerated	10.421	proportion of work group	0.631	0.118	0.063	0.037	0.025	0.125
Chinese	# of respondents	510	degree of over-representation	<b>1.109</b>	0.486	0.355	1.164	0.829	1.249
	mean # enumerated	10.671	proportion of work group	0.700	0.058	0.022	0.044	0.021	0.156
Malay	# of respondents	110	degree of over-representation	0.736	<b>2.998</b>	1.228	0.735	1.126	0.380
	mean # enumerated	9.682	proportion of work group	0.465	0.355	0.077	0.027	0.028	0.047
Indian	# of respondents	83	degree of over-representation	0.685	1.495	<b>4.648</b>	0.350	1.880	0.300
	mean # enumerated	9.867	proportion of work group	0.433	0.177	0.293	0.013	0.047	0.038

Tentative results