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CULTURE CONTACT :
THE AFRIKANER AS A MINORITY
IN DURBAN
A STUDY IN NETWORK THEORY AND PRACTICE

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CHAPTER ONE

THE PROBLEM AND CONTACT SITUATION

1. THE PROBLEM

1.1. The Problem Stated Concisely

Our *main* concern is *double-barrelled* in nature. *Firstly*, to study the behaviour patterns of Afrikaans-speakers, as a minority, in a predominantly English cultural contact situation, where *culture contact* refers to the phenomenon of *contact between two (or more) groups of people* rather than to the active interaction of individuals resulting from such contact.¹⁾ Although the exercise is an attempt to identify the characteristics of certain modal types of reaction to contact the question "Why people opt for a given mode of adaptation and response" will not be completely neglected. *Secondly*, the aim is to contribute to some extent, within the context of a given subject matter area, to social network theory and practice. Here the emphasis is on a long-range, more theoretical and methodological concern, rather than on an immediate short term research goal which inevitably leads away from basic research to practical or "problem-solving" research. It follows that the study must be evaluated, at least in part, in terms of its contribution to theory²⁾ and/or methods.

A *subsidiary* aim of the study is to *demonstrate*, not discuss, the interaction between theory, method and subject matter.

Here we are responding to the *plea for an integrated approach*.

(See: Zetterberg, H. (1963); Merton, R. (1967); and Eckhardt, K. and Ermann, M. (1979)).

The choice of subject matter in this study should not be interpreted as resulting from a concern with, nor an intention to contribute to, the ethnography of Afrikaner culture. Already there exists a vast literature on Afrikaners, Afrikaans culture, the Afrikaner's world view and related topics.³⁾ On the history of Afrikaners the work of Moodie (1975), van Jaarsveld (1959, 1961 and 1963) and de Klerk (1976) is particularly enlightening. The rise of Afrikaner Nationalism is well documented by Moodie (who has a very detailed and useful bibliography) and van Jaarsveld, while an exposition of the Afrikaner's *world view* can also be found in the work of the two authors mentioned. Afrikaner culture has been studied in great depth and detail. In this regard the contributions of Grobbelaar (1974) and Pieterse (1965), the latter focussing specifically on Afrikaner youth, are important. The extensive literature on Afrikanerdom greatly influenced our decision not to concern ourselves with either the ethnography of Afrikaner culture or a specific detailed study of acculturation of Afrikaners in Durban.

1.2. Background to Choice of Problem

Arriving in Durban towards the end of 1965 in order to take up a teaching appointment at the University of Natal, the researcher found himself in a situation almost entirely new to him. As an Afrikaans-speaker he grew up in a predominantly Afrikaans

community and also attended an Afrikaans medium university in the Cape Province. Thus, before moving to Durban, he was always a member of the dominant, numerically superior, majority in all situations of culture contact between white English- and Afrikaans-speaking South Africans. The new contact situation was radically different. For the first time ever he found himself in a predominantly English cultural environment. Simultaneously a change in status occurred: from being a member of the numerically superior majority to being a member of a numerically very inferior minority. Adapting to such a situation proved to be fairly agonizing and traumatic. The words of the poet C.P. Hoogenhout who writes:

'Engels! Engels! Alles Engels!⁴⁾
Engels wat jy sien en hoor;...

succinctly summarizes the researcher's initial reaction! Fortunately this period of uncertainty did not last very long. Four factors made adaptation to the situation easier, less problematic and less traumatic. First of all, the researcher is a product of a so-called "mixed marriage", with one side of the family almost exclusively English-speaking, and the other side almost exclusively Afrikaans-speaking. Secondly, he attended a parallel medium high school where the ratio of Afrikaans- to English-speaking pupils was roughly 2:1. Thirdly, although he attended an Afrikaans medium university, most of the text-books used during the early 'sixties, when he was a student, were in English. Fourth and finally, while at university close friendship ties were established with two fellow English-speaking students. It was believed, perhaps rather naively, that the combined effect of the four factors outlined above meant that the researcher was less likely to stereotype "the English"; and

that this, in turn, meant a positive orientation which resulted in a perception of the environment as less threatening than would otherwise have been the case. The researcher's own experience in the contact situation together with his attempt to explain what was happening to him resulted in him becoming more sensitized to the problems associated with adaptation. He started to ask questions about how other people coped with the problems they experience in new contact situations. Thus the emphasis shifted from a personal, individual concern with problems of adaptation, to a more general concern with and interest in such problems. This shift in emphasis led to the discovery that a "positive attitude towards the English", which the researcher saw as resulting in a "more fortunate position" making adaptation easier, need not be a prerequisite for easy, quick, non-problematic adaptation. Perhaps the opposite also applied! Was it not conceivable that a "negative attitude" towards English-speakers could also result in fewer problems of adaptation? A third possibility was that neither a positive nor a negative attitude towards English-speakers or "English culture" had anything to do with adaptation.

Increasingly the questions asked started to resemble what Merton (1959: xiii-xix) would call *originating questions*. Questions such as:

'How do people react in situations of culture contact?';

'Do all people react in the same way?';

'If not, how can we explain any variations?'; and

'Is it possible to identify certain reaction patterns?'

suggested themselves. However, although it became increasingly

important to the researcher to find answers to these originating questions, his other research commitments prevented him from embarking on a detailed and systematic study of reactions to contact situations. During 1966 and 1967 we were engaged in fieldwork collecting data relating to the socio-economic position of a cross-section of the white population living in Durban. Throughout this study, however, the issues relating to culture contact and reactions to culture contact never disappeared completely. In fact the socio-economic study had a fortuitous by-product in that it brought the researcher into contact with a wide spectrum of Afrikaans-speaking respondents. This in turn resulted in two observations. First, the researcher found evidence to support his conclusion that his experiences in the contact situation were not personal nor unique. In other words, other people also had to cope with problems of adaptation. This reinforced his belief in the importance of studying people's reactions to culture contact. Secondly, the researcher discovered some respondents regarded themselves as *Afrikaners* while others identified themselves as *South Africans*. A third category of people were described by others as *anglicised Afrikaners*. This second observation suggested a possible answer to some of our originating questions. The possibility that the labels *Afrikaner*, *South African* and *anglicised* represent distinct reactions to the contact situation had to be considered. These reactions could also be described as modes of adaptation to the contact situation.

A second study, conducted in 1969 and 1970 among flat-dwellers in Durban (see Kinloch, G.C. *et al.*: 1970) once again provided the opportunity to establish contact with a number of Afrikaans-speakers. Again the evidence supported the two earlier observations.

By the middle of 1970 the researcher was free to embark on a more detailed and systematic study of reactions to culture contact. Entering the field as a "participant as observer" we became aware of other labels used by Afrikaans-speakers to identify or describe fellow Afrikaners. Thus in addition to "Afrikaner" the following terms were often used in casual conversations:

"ware"	(true)	Afrikaner;
"suiwer"	(pure)	Afrikaner;
"goeie"	(good)	Afrikaner;
"regte"	(real)	Afrikaner: and
"verengelsde"	(anglicised)	Afrikaner. ⁵⁾

At this stage all available evidence and observations pointed to the existence of categories of people, where each category represents a particular mode of adaptation to the contact situation. On the one hand there are those Afrikaans-speakers who are very concerned about maintaining their language, religious beliefs, identities, etc., on the other, there are those who are completely anglicised. Somewhere on the continuum between these two extremes there are others in a transitional or marginal stage.

However, the exact nature of the relationship between these modes of adaptation or patterns of reaction and the given contact situation, i.e. Durban, was still unspecified. Logically two kinds of relationships would be possible. First of all it is possible that the actor may bring to the situation a given mode of adaptation, i.e. pure Afrikaner or anglicised Afrikaner, in which case adopting the mode of adaptation preceded his/her entry into the contact situation. Alternatively, the actor may adopt a particular mode of adaptation in response to the contact situation, in which

case adopting the mode followed his entry into the contact situation. In the former case the mode of adaptation is the independent variable explaining certain kinds of behaviour where behaviour is the dependent variable. In the latter case the thing to be explained or the dependent variable is the mode of adaptation or reaction pattern while the independent variable is the contact situation.

Within the framework of the above observations it was decided to study *pure*, *marginal* and *anglicised* Afrikaners where each category represented one possible way of reacting to the contact situation. The goal was not to determine the nature and the extent of the process of anglicisation or acculturation as it occurs in Durban, but rather to learn more about each of these categories of people within the context of a given contact situation.⁶⁾ At this early stage there were no definite hypotheses about the relationship between those categories and other variables. *It was hoped that the research itself would generate hypotheses that can subsequently be verified.*

From the outset it was intended that the study would go beyond a mere description of "categories of people living in Durban". This obviously implied that the problem was to be investigated within the framework of some theoretical perspective.

Given the researcher's long-standing interest in social stratification his first inclination was to look for some relationship between either maintaining your identity as an Afrikaner or becoming anglicised and the individual's class position or socio-economic position. However, if the researcher had hoped for a quick and neat solution he was soon disillusioned! For every working-class Afrikaner

that was anglicised we discovered a "pure Afrikaner" counterpart. Similarly, for every middle- or upper-class Afrikaner who was concerned about maintaining his or her identity there existed one that was anglicised!

Oosthuizen (1976: 23-24) in his study of acculturation among whites living on the Witwatersrand also challenges the idea that there is a necessary and sufficient relationship between a person's socio-economic position and the likelihood of him becoming anglicised. It was realized that, even though class or socio-economic position may be an important intervening variable, we had to look elsewhere for a more adequate explanation. This "looking elsewhere" entailed a closer look at the available literature on contact between different peoples. As such it often meant studying what could be described as "traditional anthropological material".

Then came a major breakthrough. The researcher read P. Mayer's *Townsmen or Tribesmen* (1963). In this book Mayer distinguishes between two categories of people which he identifies as the *School Xhosa* and the *Red Xhosa*. These two categories represent two very different reactions of the Xhosa-speaking people to a highly complex, urban contact situation. The "Reds" or traditionalists are incapsulated by their choice to

'.... keep up an unbroken nexus with the rural home, and to abstain from unnecessary contact with non-Reds or participation in non-Red kinds of activity.'

(Mayer, 1963:90)

Consequently they remain committed to their rural homes and Red values. "School" people, on the other hand, chose to associate with

a wide range of people resulting in contact with new opportunities and ideas in different fields of activity, for example sport and beliefs. These reactions could be seen as different modes of adaptation. Mayer (1963:283), obviously realizing this writes:

'The country-bred Xhosa who migrates to East London must, as is obvious, learn another mode of living in order to accommodate himself to this very different environment; we have seen that the new mode may or may not be an urbanized one.'

In order to explain the different reactions Mayer turned to an analysis of the *social networks* of *egos* who are members of the two categories of people. Important differences emerged. Whereas the social networks of "Red" people were very dense, homogeneous and multiplex, those of "School" people were not so dense, heterogeneous and, more often than not, single-stranded or uniplex. It is therefore suggested that at least part of the answer to the question of why people react differently in a given contact situation is to be found in their social networks.

Mayer's study had an important influence on the present investigation. The researcher was immediately struck by the remarkable similarity in the reactions or behaviour patterns of the so-called Red Xhosa and those of Afrikaans-speakers identified as "pure" in our present study! Consequently the possibility that some of Mayer's answers might also turn out to be *our answers* suggested itself. Perhaps even more important though, was the fact that Mayer's study introduced the researcher to the so-called network approach. This approach provided the conceptual and theoretical framework for our study of the reactions of Afrikaans-speaking people in a predominantly English cultural contact situation.

The "discovery" of, and new found interest in the social network approach resulted in a shift of emphasis. This shift occurred in so far as a new dimension was added to what had initially been conceived of as a purely subject matter focus of the research problem. Thus, in addition to a concern with subject matter, the problem of *how to do research focussed on social networks* became increasingly important as the study progressed. Looking back this was a "natural" development given the researcher's belief that theory, method and substance are inseparable. Although Mayer's study played an important role in that it introduced us to the social network approach and its application to, broadly speaking, related areas of subject matter, *our concern here is not with replication*. We deviate from Mayer, *inter alia*, in being unconcerned with ethnographic details.

In order to make explicit the theoretical and methodological stance of the researcher, the next chapter contains a detailed discussion of the origin and development of the network approach, while Chapter Three deals with problems of method.

2. THE CONTACT SITUATION

The geographical context of the study is the metropolitan area of Durban. It is obvious from the information contained in Table 1 that whites living in the metropolitan area of Durban are overwhelmingly English-speaking.

TABLE 1

THE PERCENTAGE DISTRIBUTION OF ENGLISH- AND AFRIKAANS-
SPEAKING WHITES IN THE METROPOLITAN AREA OF DURBAN,
BY BOROUGH AND OUTER SUBURBS RESPECTIVELY, 1970

AREA	LANGUAGE		N
	ENGLISH	AFRIKAANS	
DURBAN BOROUGH*	75,86	18,40	191 669
OUTER SUBURBS**	77,82	16,75	62 012
TOTAL METROPOLITAN DURBAN	76,34	18,00	253 681
NOTES:	<p>*Durban Borough includes: Bellair/Sea View, Berea North, Berea South, Bluff, Cato Manor, Congella, Durban City, Durban North, Woodlands, Other and Unspecified.</p> <p>**Outer Suburbs include: Amanzimtoti, Queensburg, Kingsborough, Umbogintwini, Pinetown, Kloof, New Germany, Westville and Yellowwood Park.</p>		
SOURCE:	<p>Population Census 1970, Metropolitan Area of Durban, Report No. 02-05-17, Pretoria: Government Printer, 1977, pp.19-21</p>		

This predominance of English as home language applies to both the Borough and the outer suburbs.

In Table 2 we focus on the percentage distribution of Afrikaans- and English-speakers living in the inner suburbs in the Borough of Durban, by each suburb. We note that Afrikaans-speakers are fairly well represented in the following inner suburbs: Bellair/Sea View (39,50%); Bluff (33,86%); Congella (32,95%); and Woodlands (21,31%). Given the overall percentage of Afrikaans-speakers (18,40%) living in the Borough it could be argued that they are over represented in these areas. Conversely, Afrikaans-speakers are under-represented in: Berea North (10,99%); Berea South (12,75%); Cato Manor (12,28%); and Durban North (5,28%). It is only in Durban City where the percentage of Afrikaans-speakers (18,32%) is almost identical to the percentage living in the Borough of Durban (18,40%). The *actual degree* of over- or under-representation is clearly reflected in the ratios recorded in Table 2. Bellair/Sea View had, for example, the highest ratio of over-representation of Afrikaans-speakers – ratio of 2,15 or relatively more than twice as many in the area as in Durban Borough as a whole. Next is Bluff, with a ratio of 1,84 followed by Congella with a ratio of 1,80 and so on. Durban North with a ratio of only 0,29 has relatively speaking only about 30% of the number of Afrikaans-speakers it should have on the basis of percentages in Durban Borough as a whole.

Examining the percentage distribution of Afrikaans- and English-speakers living in the outer suburbs for each suburb separately we note that Afrikaans-speakers are over-represented in the following

TABLE 2

PERCENTAGE DISTRIBUTION OF AFRIKAANS- AND ENGLISH-
SPEAKERS LIVING IN THE INNER SUBURBS IN THE
BOROUGH OF DURBAN, BY EACH SUBURB, 1970

DURBAN BOROUGH: INNER SUBURBS	N	AFRIKAANS- SPEAKING	% OF N	RATIO	ENGLISH- SPEAKING	% OF N	RATIO
BELLAIR/SEA VIEW	12 340	4 874	39,50	2,15	6 856	55,56	0,73
BEREA NORTH	41 691	4 583	10,99	0,60	34 917	83,75	1,10
BEREA SOUTH	39 712	5 063	12,75	0,69	32 225	81,15	1,07
BLUFF	21 907	7 418	33,86	1,84	13 590	62,03	0,82
CATO MANOR	2 809	345	12,28	0,67	2 291	81,56	1,08
CONGELLA	601	198	32,95	1,80	352	58,57	0,77
DURBAN CITY	43 078	7 892	18,32	1,00	31 654	73,48	0,97
DURBAN NORTH	13 321	703	5,28	0,29	12 222	91,75	1,21
WOODLANDS	12 431	2 649	21,31	1,17	9 333	75,08	0,99
OTHER AND UNSPECIFIED	3 779	1 551	41,04	-	1 965	52,00	-
TOTAL BOROUGH	191 669	35 276	18,40	1,00	145 405	75,86	1,00

NOTES: Ratio = $\frac{\% \text{ of N in Inner Suburb}}{\% \text{ of N in Borough}}$

SOURCE: Population Census 1970, Metropolitan Area of Durban, Report No. 02-05-17, Pretoria: Government Printer, 1977, pp.17-19

suburbs: Amanzimtoti (20,85%); Queensburgh (30,06%); Kingsborough (24,43%); Umbogintwini (27,33%); and Yellowwood Park (17,78%). Conversely, they are under-represented in: Pinetown (13,53%); Kloof (3,83%); New Germany (12,89%); and Westville (6,05%). English-speakers are over-represented in Pinetown (79,16%); Kloof (92,01%); and Westville (88,96%). This information appears in Table 3. Once again the ratios recorded in Table 3 reflect the *actual degree* of over- or under-representation. Of all the outer suburbs Queensburgh has the highest ratio (1,79) of over-representation of Afrikaans-speakers. Next is Umbogintwini (ratio 1,63), followed by Kingsborough with a ratio of 1,46. Kloof with a ratio of only 0,23 has relatively speaking only 23% of the number of Afrikaans-speakers it should have on the basis of percentages in the outer suburbs as a whole.

The information contained in Tables 2 and 3 is shown diagrammatically in the map on page 16.

Considering the percentage distribution of the total number of Afrikaans- and English-speakers respectively in the Borough of Durban (see Table 4) we note that the great majority (84,55%) of Afrikaans-speakers live in one of the following inner suburbs: Durban City (22,37%); Bluff (21,03%); Berea South (14,35%); Bellair/Sea View (13,82%); and Berea North (12,99%). Of this 84,55% more than half or 51,33% live in only two inner suburbs namely Durban City and Bluff. Of the English-speakers more than two-thirds or 67,94% live in only three inner suburbs, namely: Berea North (24,01%); Berea South (22,16%); and Durban City (21,77%).

TABLE 3

PERCENTAGE DISTRIBUTION OF AFRIKAANS- AND ENGLISH-
SPEAKERS LIVING IN THE OUTER SUBURBS, 1970,
FOR EACH SUBURB SEPARATELY

OUTER SUBURBS	N	AFRIKAANS- SPEAKING	% OF N	RATIO	ENGLISH- SPEAKING	% OF N	RATIO
AMANZIMTOTI	9 095	1 896	20,85	1,24	6 807	74,84	0,96
QUEENSBURGH	10 267	3 291	30,06	1,79	6 577	64,07	0,82
KINGSBOROUGH	5 199	1 270	24,43	1,46	3 751	72,15	0,93
UMBOGINTWINI	633	173	27,33	1,63	427	67,46	0,87
PINETOWN	16 668	2 256	13,53	0,81	13 194	79,16	1,02
KLOOF	4 781	183	3,83	0,23	4 399	92,01	1,18
NEW GERMANY	1 427	184	12,89	0,77	976	68,40	0,88
WESTVILLE	11 481	695	6,05	0,36	10 214	88,96	1,14
YELLOWWOOD PARK	2 463	438	17,78	1,06	1 910	77,55	1,00
TOTAL OUTER SUBURBS	62 014	10 386	16,75	1,00	48 255	77,82	1,00

NOTES: Ratio = $\frac{\% \text{ of N in Specified Outer Suburb}}{\% \text{ of N in Total of All Outer Suburbs}}$

SOURCE: Population Census 1970, Metropolitan Area of Durban, Report No. 02-05-17, Pretoria: Government Printer, 1977, pp.20-21

1970 WHITE POPULATION : HOME LANGUAGES, GREATER DURBAN AREA

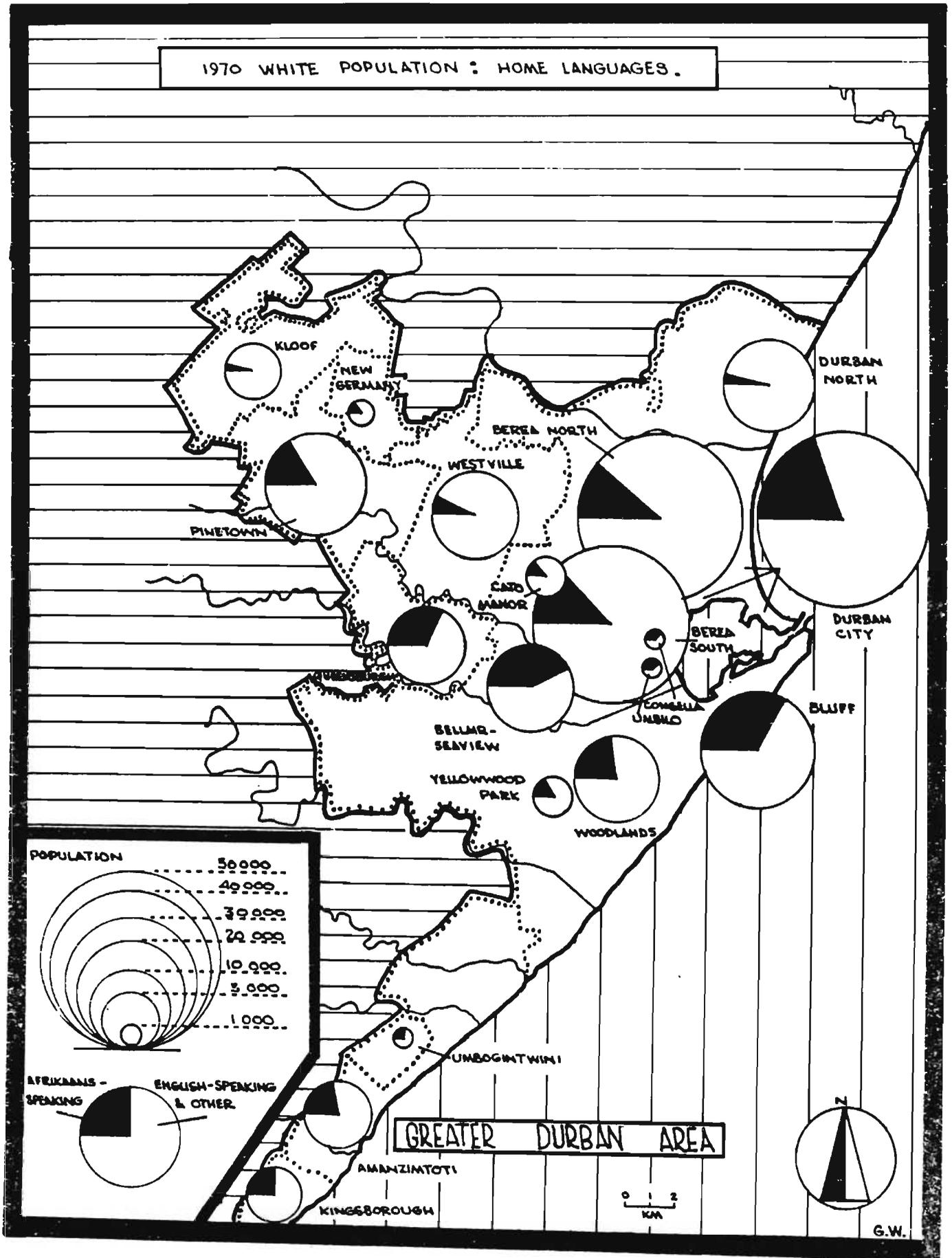


TABLE 4

PERCENTAGE DISTRIBUTION OF THE TOTAL NUMBER OF AFRIKAANS-
AND ENGLISH SPEAKERS RESPECTIVELY, IN THE
BOROUGH OF DURBAN, 1970

BOROUGH OF DURBAN: INNER SUBURBS	AFRIKAANS- SPEAKING	% OF N	ENGLISH- SPEAKING	% OF N
BELLAIR/SEA VIEW	4 874	13,82	6 856	4,72
BEREA NORTH	4 583	12,99	34 917	24,01
BEREA SOUTH	5 063	14,35	32 225	22,16
BLUFF	7 418	21,03	13 590	9,35
CATO MANOR	345	0,98	2 291	1,58
CONGELLA	198	0,56	352	0,24
DURBAN CITY	7 892	22,37	31 654	21,77
DURBAN NORTH	703	1,99	12 222	8,41
WOODLANDS	2 649	7,51	9 333	6,42
OTHER AND UNSPECIFIED	1 551	4,40	1 965	1,35
TOTAL BOROUGH N	35 276	100,00	145 405	100,01
SOURCE: Population Census 1970, Metropolitan Area of Durban, Report No. 02-05-17, Pretoria: Government Printer, 1977, pp.17-19				

In Table 5 we examine the percentage distribution of the total number of Afrikaans- and English-speakers respectively in the outer suburbs. From the information available it is obvious that a large majority of Afrikaans-speakers (83,9%) live in only four of the outer suburbs, viz.: Amanzimtoti (18,26%); Queensburgh (31,69%); Kingsborough (12,23%); and Pinetown (21,72%). More than three-quarters or 76,25% of all English-speakers living in the outer suburbs, also live in only four suburbs, namely: Amanzimtoti (14,11%); Queensburgh (13,63%); Pinetown (27,34%); and Westville (21,17%).

The information contained in Tables 2 to 5 becomes much more significant if we compare it with the socio-economic status of the inner and outer suburbs. As our indicator of the status of a given suburb we took the number of people resident in that suburb who earned R10 000 or more in 1970. Calculating a *suburb status score* now simply becomes a matter of calculating the percentage of people earning R10 000 or more in 1970 for each suburb separately. The resulting percentage became our *status score*. This information is contained in Tables 6 and 7.

In order to facilitate a comparison of data contained in Tables 2 to 5 with that of Tables 6 and 7 we classify the status scores into four categories, viz.:

0 - 0,5	low status suburb
0,51 - 1,0	middle status suburb
1,10 - 2,0	high status suburb
2+	very high status suburb

TABLE 5

PERCENTAGE DISTRIBUTION OF THE TOTAL NUMBER OF AFRIKAANS-
AND ENGLISH-SPEAKERS RESPECTIVELY, IN THE
OUTER SUBURBS, 1970

OUTER SUBURB	AFRIKAANS- SPEAKING	% OF N	ENGLISH- SPEAKING	% OF N
AMANZIMTOTI	1 896	18,26	6 807	14,11
QUEENSBURGH	3 291	31,69	6 577	13,63
KINGSBOROUGH	1 270	12,23	3 751	7,77
UMBOGINTWINI	173	1,67	427	0,88
PINETOWN	2 256	21,72	13 194	27,34
KLOOF	183	1,76	4 399	9,12
NEW GERMANY	184	1,77	976	2,02
WESTVILLE	695	6,67	10 214	21,17
YELLOWWOOD PARK	438	4,22	1 910	3,96
TOTAL OUTER SUBURBS N	10 386	99,99	48 255	100,00

SOURCE: Population Census 1970, Metropolitan Area of Durban, Report No. 02-05-17, Pretoria: Government Printer, 1977, pp.20-21

TABLE 6
INNER SUBURB STATUS SCORES

INNER SUBURB	TOTAL POPULATION N	TOTAL EARNING R10 000 OR MORE IN 1970	STATUS SCORE
BELLAIR/SEA VIEW	12 340	16	0,13
BEREA NORTH	41 691	693	1,66
BEREA SOUTH	39 712	453	1,14
BLUFF	21 907	68	0,31
CATO MANOR	2 809	21	0,75
CONGELLA	601	2	0,33
DURBAN CITY	43 078	302	0,70
DURBAN NORTH	13 321	373	2,80
WOODLANDS	12 431	17	0,14
<p>SOURCE: Population Census 1970, Metropolitan Area of Durban, Report No. 02-05-17, Pretoria: Government Printer, 1977, pp.32-34</p>			

TABLE 7
OUTER SUBURB STATUS SCORES

OUTER SUBURB	TOTAL POPULATION N	TOTAL EARNING R10 000 OR MORE IN 1970	STATUS SCORE
AMANZIMTOTI	9 095	56	0,62
QUEENSBURG	10 265	16	0,16
KINGSBOROUGH	5 199	15	0,29
UMBOGINTWINI	633	3	0,47
PINETOWN	16 668	162	0,97
KLOOF	4 781	204	4,27
NEW GERMANY	1 427	4	0,28
WESTVILLE	11 481	341	2,97
YELLOWWOOD PARK	2 463	7	0,28
<p>SOURCE: Population Census 1970, Metropolitan Area of Durban, Report No. 02-05-17, Pretoria: Government Printer, 1977, pp.35-36</p>			

Comparing the information summarized in Table 2 with the information contained in Table 6 we note that Afrikaans-speakers are over-represented in the low status inner suburbs, viz.: Bellair/Sea View, Bluff, Congella and Woodlands. Conversely, they are under-represented in: one middle status suburb (Cato Manor); two high status suburbs (Berea North and Berea South); and the only very high status suburb (Durban North). The position of English-speakers tends to be very different. They are over-represented in only one low status suburb (Woodlands), while they are under-represented in three low status suburbs (Bellair/Sea View, Bluff and Congella) and one middle status suburb (Durban City). Thus English-speakers tend to be over-represented in the middle (Cato Manor), high (Berea North and Berea South) and very high status (Durban North) suburbs.

The same trend applies to the outer suburbs (see Tables 3 and 7). Afrikaans-speakers are over-represented in the low status outer suburbs of Amanzimtoti, Queensburgh, Kingsborough, Umbogintwini and Yellowwood Park while they are under-represented in only one low status outer suburb, namely, New Germany. In addition to this one low status outer suburb, they are also under-represented in the one middle status (Pinetown) and two very high status (Kloof and Westville) outer suburbs. Once again the opposite applies to English-speakers living in the outer suburbs. They are over-represented in one middle status suburb (Pinetown) as well as in the two very high status suburbs Kloof and Westville. In Amanzimtoti, Queensburgh, Kingsborough, Umbogintwini, New Germany and Yellowwood Park, all low status outer suburbs, they are, unlike their Afrikaans-speaking counterparts, under-represented.

Comparing the information recorded in Table 4 with the information in Table 6 we note that 42,91% of all Afrikaans-speakers live in low status inner suburbs. The corresponding percentage for English-speakers is only 20,73%. Thus it could be argued that Afrikaans-speakers are much more likely to settle in low status inner suburbs. An equal percentage of Afrikaans- (22,35%) and English-speakers (22,35%) live in the two middle status inner suburbs, while 46,17% of English-speakers and only 27,34% of all Afrikaans-speakers live in the two high status inner suburbs. The difference between the two language groups becomes even more pronounced if we compare their positions in the one very high status inner suburb. While 8,41% of all English-speakers live in Durban North the corresponding percentage for Afrikaans-speakers is only 1,99%. Whereas the great majority (65,26%) of all Afrikaans-speakers live in low and middle status inner suburbs, the majority of English-speakers (54,58%) live in high and very high status inner suburbs.

Once again the same trend is observable in the outer suburbs. Comparing Tables 5 and 7 we observe once again that the majority of Afrikaans-speakers (51,55%) live in low status outer suburbs. The percentage of all English-speakers living in these low status outer suburbs is only 28,26%. The position of the two language groups in the middle status outer suburbs is almost identical with 39,53% of all Afrikaans-speakers and 41,45% of all English-speakers living in either Amanzimtoti or Pinetown. Once again the difference between the two language groups becomes very pronounced if we compare their positions in the very high status outer suburbs. Whereas

30,29% of English-speakers live in either Kloof or Westville the corresponding percentage for Afrikaans-speakers is a mere 8,45%. We must therefore conclude that, relative to English-speakers, Afrikaans-speakers are much more likely to settle in low status outer suburbs.

Further evidence of the relatively weak socio-economic position of Afrikaans-speakers living in the metropolitan area of Durban are to be found in the occupational distribution of Afrikaans-speaking males. In Table 8, we examine the occupational distribution of economically active English- and Afrikaans-speaking whites living in the metropolitan area of Durban by sex.

Analysing the data contained in Table 8 we notice that relative to Afrikaans-speaking males, a much larger percentage of English-speaking males are employed in the following categories: professional, administrative and sales. Conversely, relative to their English-speaking counterparts, a larger percentage of Afrikaans-speaking males are employed as clerical, service, farming, forestry, production and transport workers. Thus we see that English-speaking males are more likely to be employed in higher status occupations. It is also interesting to note that there is almost no difference between English- and Afrikaans-speaking females as far as occupational distribution is concerned. Relative to their male counterparts, Afrikaans-speaking females are therefore in a much more favourable position. Perhaps the reason for this is that low status Afrikaans-speaking women never enter the job market. The very small percentage of Afrikaans-speaking females who are

TABLE 8

OCCUPATIONAL DISTRIBUTION OF ECONOMICALLY ACTIVE ENGLISH-
AND AFRIKAANS-SPEAKING WHITES LIVING IN THE METROPOLITAN
AREA OF DURBAN, BY SEX, 1970, REPORTED IN PERCENT

OCCUPATIONAL CATEGORY	MALE		FEMALE		TOTAL	
	AFR.	ENG.	AFR.	ENG.	AFR.	ENG.
PROFESSIONAL	10,89	18,03	17,26	17,44	12,76	17,82
ADMINISTRATIVE	4,31	10,70	0,61	1,41	3,22	7,41
CLERICAL	24,40	17,02	58,02	57,07	34,27	31,19
SALES	4,71	13,08	12,16	13,32	6,90	13,17
SERVICE	10,31	4,61	5,06	5,23	8,77	4,83
FARMING AND FORESTRY	0,68	0,48	0,18	0,12	0,53	0,35
PRODUCTION AND TRANSPORT	42,28	33,76	2,84	2,66	30,73	22,76
NOT CLASSIFIABLE	2,42	2,33	3,78	2,76	2,82	2,48
TOTAL	100,00	100,01	99,91	100,01	100,00	100,01
N =	13 739	56 326	5 714	30 840	19 453	87 166

SOURCE: Population Census 1970, Metropolitan Area of Durban, Report No. 02-05-17, Pretoria: Government Printer, 1977, pp.66-67 and 69-70

economically active plus their more favourable position relative to Afrikaans-speaking males, suggests that only the better qualified females seek employment. The lower status of economically active Afrikaans-speaking males relative to economically active English-speaking males and all economically active females, irrespective of language, becomes even more apparent if we consider the information contained in Table 9. Having classified the various occupations into upper, middle and lower status categories we consider, in Table 9, the percentage of economically active Afrikaans- and English-speaking males and females respectively in each of these three categories.

Whereas the majority of Afrikaans-speaking males (54,6%) are classified in the lower occupational category the majority of English-speaking males (41,77%), females (73,83%), and Afrikaans-speaking females (73,57%) are classified in the middle occupational category. The fact that only 11,16% of Afrikaans-speaking males are classified in the upper occupational category, as opposed to 18,45% of English-speaking males, 17,94% of English-speaking females and 17,93% of Afrikaans-speaking females further illustrates their lower occupational status position. Further support for the argument that Afrikaans-speakers in Durban tend to be economically more disadvantaged *on average* than the English-speakers is to be found in the work of Kuper, Watts and Davies (1951:88-89). Calculating *mean* and *per capita* incomes for English- and Afrikaans-speakers they found that English-speakers had a mean income of $\bar{x} = \text{£}571,76$ against $\text{£}410,78$ for Afrikaans-speakers. Against this the per capita incomes ($\bar{x} = \text{£}298,93$ versus $\text{£}185,04$) were more different due to a higher ratio of dependants amongst Afrikaans-speakers.

TABLE 9

OCCUPATIONAL STATUS BY HOME LANGUAGE BY SEX OF THE
ECONOMICALLY ACTIVE WHITE POPULATION OF METRO-
POLITAN DURBAN, 1970, REPORTED IN PERCENT

OCCUPATIONAL STATUS	MALE		FEMALE		TOTAL	
	AFR.	ENG.	AFR.	ENG.	AFR.	ENG.
UPPER OCCUPATIONAL CATEGORY*	11,16	18,45	17,93	17,94	13,13	18,27
MIDDLE OCCUPATIONAL CATEGORY**	34,24	41,77	73,57	73,83	45,68	53,08
LOWER OCCUPATIONAL CATEGORY***	54,60	39,77	8,49	8,23	41,19	28,64

NOTES: * = Professional Workers
 ** = Administrative, Clerical and Sales Workers
 *** = Service, Farm, Forestry, Production and
 Transport Workers

SOURCE: Population Census 1970, Metropolitan Area of Durban,
 Report No. 02-05-17, Pretoria: Government Printer,
 1977, pp.66-67 and 69-70

From the above discussion it is obvious that the Afrikaans-speaker in Durban finds himself in a contact situation where he occupies not only a numerically inferior position but also a position of status inferiority. It is to this situation that the new arrival must adapt himself, either by bringing to the situation a mode of adaptation, or by developing such a mode in response to his everyday experiences.

NOTES

1. See also: Herskowitz (1958:1-32).
2. In the present study "theory" refers to: (a) a system of interdependent and interrelated concepts; and (b) a system of interrelated and interdependent propositions. See also: Zetterberg, H. (1963) and Chapter Two of the present report.
3. The work of Moodie (1975) includes a detailed and excellent bibliography of works on Afrikanerdom and related topics.
4. Translated this would read:

'English! English! Everything English!
English is all that we see and hear; ...'

5. See: Hoogenhout, C.P.: "Vooruitgang" in: Opperman, D.J.: *Groot Verseboek*, Nasionale Boekhandel Bpk., Johannesburg, 1960.
6. The category "good" Afrikaner obviously implies the existence of a "not so good" or even "bad" Afrikaner. The conclusion that the "not so good" or "bad" Afrikaners are those who are anglicised is almost inevitable!

A study of the nature and the extent of the process of acculturation in Durban, although outside the scope of this investigation, would in itself be a fascinating topic for research.

CHAPTER TWO

THE ORIGIN AND NATURE OF THE NETWORK APPROACH

1. INTRODUCTION

Our search for an adequate theoretical framework resulted in the social network approach being selected as the primary vehicle for analysis. In the present chapter we focus on the origin, nature and development of network analysis, summarising the major approaches and principle issues that have been raised under the rubric.

The (metaphorical) use of the term "network" is not uncommon in social science literature. Both anthropologists and sociologists often refer to a network of social or personal relationships, where the term "network" is used in a metaphorical not an analytical sense. The use of "network" as an analytical tool rather than a metaphorical concept is relatively new. The importance of this distinction between the metaphorical and analytical uses of the term must be emphasized. According to Reader (1964:22) the notion of network as a metaphor includes several different aspects of social relationships. The failure to distinguish between these aspects and the vagueness of the relationship, if any, between them can only contribute to the confusion.

Looking at British studies the use of networks as an analytical tool dates only from 1954 when Barnes (1954) introduced the notion of a social network in his study of a Norwegian Island parish.¹⁾ In this study Barnes is primarily interested in the morphological

features or characteristics of the network and its implications for behaviour. The relationship postulated is between the morphological features of the network as independent variable and certain kinds of behaviour as dependent variable.

The next study that had a major impact, in that it stimulated interest in the network approach, was one conducted by Bott (1957). She sought to establish a relationship between the morphological features of networks of families and the allocation of conjugal roles within the family. Her study stimulated much further research, often resulting in a rejection of her original hypothesis. Recently Kapferer, for example, found it necessary to reformulate her original hypothesis on the basis of his study of families in urban Zambia. (See Kapferer 1973). Her study also had negative consequences for the network approach. One of which was, according to Mitchell (1969:6), the subsequent tendency to associate the notion of social networks almost exclusively with conjugal roles. Today, however, this no longer applies. Many writers refer to the wide applicability of the network approach. Barnes (1972:1), for example, writes:

'There seems to be no limit to the problems that can be tackled with the help of networks,

As a relatively new introduction it is at this stage difficult to predict or determine the analytic role that the network approach will play in sociology. However, this does not dampen the enthusiasm of some social scientists. Frankenberg, (quoted by Mitchell 1969:1) for instance, sees network as the first major advance in the conceptual apparatus of sociology since the introduction of the concept "role". For Lorrain and White (1977:95) networks

'..... will probably become as important to sociology as Euclidian space and its generalizations are to physics.'

The existence of an International Association of Network Researchers plus a journal entitled "Social Networks" bear witness to the increasing popularity of the network approach. As a distinctive approach this popularity seems to have three rather different origins. First, there is the dissatisfaction with structural-functional analysis especially when it is applied to complex modern societies and consequently the belief that network analysis will be more useful as an alternative mode of analysis. However, as a mode of analysis Mitchell (1969:9) sees networks as playing a complementary role to, rather than a substitute for, other sociological and anthropological modes of analysis. The second reason for the current popularity of network analysis is in:

'..... the development of non-quantitative mathematical ways of rigorously stating the implications entailed in a set of relationships among a number of persons.'

(Mitchell 1969:1)

At this stage it is perhaps necessary to admit that the network approach has, to date, been less successful in realizing the second objective. One reason for this is suggested by Foster (1979:246) when he writes:

'Although many well-known sociological and social psychological ideas had been translated into deterministic, graph-theoretic models (e.g. Davis 1963), the testing of these mathematical formulations proved to be complex.'

Third, and finally, the attractiveness of the network approach lies in its interdisciplinary nature. (See: Foster: 1979.)

So far those who have used this approach in studying and analyzing their particular fields of interest can be grouped into one of two categories. There are first those who are primarily

interested in the flow of communication (e.g., gossip, rumour, information and knowledge) through networks. Many of these studies focus on the flow of communication in relation to the definition of and sanctioning of norms in what Mitchell (1969:36) refers to as a "communication set". Research that fits into this category would include the work of Bott (1957), Philip Mayer (1961), Epstein (1964), Barnes (1954), etc. Secondly, there are those researchers who are mainly interested in what may be called the mobilization or activating of segments of a network by an actor in order to achieve a goal or end. Here we are concerned with how people use their networks in order to achieve goals or ends which they define as desirable or worthwhile. Mitchell (1969:38) points to the fact that here the links are used for the flow of goods and/or services rather than the flow of information. In order to distinguish this kind of network from others, Adrian Mayer (1966) refers to it as an "action-set". For him this activating of network links is for a specific goal or purpose and for a limited period only. It also implies a transaction between the initiating actor at the centre of the action-set and his activated contacts. It is this transactional element which, according to Mayer, enables us to distinguish between action-set links and other network links. Research that fits into the "action-set" category rather than the communication-set category include the work of Boswell (1969), Kapferer (1969), Coombs (1970), Aronson (1970), Blok (1973), Wheeldon (1969) and Harries-Jones (1969).

In addition to the substantive applications network analysis can also make a contribution to sociological theory. In an article

entitled "The Strength of Weak Ties" Mark Granovetter (1977) argues network analysis can provide the bridge between micro- and macro-sociological theory. In order to do this it is suggested that some attention be focused on the role of weak links in social networks. Such an emphasis forces a discussion of relations *between* rather than *within* social networks. It is through weak links that small-scale interactions become translated into large-scale patterns. Hence it could be argued that a weak link is responsible for the diffusion of information (communication) through the larger system. It is, in short, the weak link which bridges the gap between social networks.

It is interesting to note, incidentally, that almost all of those who used the network approach to date, did so either retrospectively; very few started out with a network framework, or they conducted network studies calling it something else. (See: Foster: 1979:242.) Even amongst those who did adopt a network perspective as well as those intending to use this approach, the lack of conceptual consensus severely limits the usefulness of collected data. Mitchell (1974:284) comments:

'.... it would be difficult to argue that the various writers who have reported field data in terms of the concepts derived from social networks are operating either with a consistent set of theoretical ideas or even with a consistent set of concepts.'

Similarly Nobel (1973:6) refers to the fact that there is:

'... no fully accepted and definitive body of concepts.'

Fortunately some of the so-much-needed conceptual clarification and

systematization of available information has already begun. In this respect the importance of Mitchell's (1969, 1973, 1974) contributions cannot be over emphasized. He has played a major role in this regard.

Having referred consistently to the "network approach" we must now clarify, as far as it is possible, the status of this approach. The main focus will be on the "theoretical" status of the network approach. Consequently the question of a theory of networks will occupy most of our discussion. Even a very superficial glance at the literature leaves one with an overwhelming impression of conceptual confusion. Barnes (1972:3) attributes this state of affairs to the relative newness of the network approach. The confusion over the nature of the approach is perhaps best illustrated in the work of Nobel (1973:5-7). In the course of three printed pages Nobel refers to "network theory", "this conceptual framework", the "concept of social network", the "network approach" and the "conceptual framework", all of which apparently mean one and the same thing. For others it is a concept e.g., Barnes (1972:3), Bott (1957:330). For still others it is a mode of analysis or a mode or technique of data collection or research strategy, e.g., Kapferer (1969), Harries-Jones (1969:301), Aronson (1970), Whitten (1970(a)). For some, we will never have a theory of networks (See for example: Kapferer (1973), Banck (1973) and Barnes (1972)). Conversely there are those who are far more optimistic, like Wheeldon (1969:128), when he refers to a "growing body of theory", or Thompson (1973) who speaks of network theory with definite propositions. Those who see the network approach as nothing more than a mode of analysis, usually argue that there are other theories which are

suitable as a basis for network analysis. Thus Kapferer (1973) advocates an acceptance of exchange theory as the most suitable basis for network analysis. Whitten and Wolfe (1973) support Kapferer by also advocating the acceptance of exchange theory. In a similar tradition Banck (1973) suggests that social networks have been used in two different ways. On the one hand we may treat the social network as the independent variable which explains certain kinds of behaviour, where the latter is taken as the dependent variable. These studies, he argues, are based on interaction theory. On the other hand, the behaviour of the actor is seen in terms of the way in which he manipulates the links he has in order to achieve some end or goal. Here the social network becomes the thing to be explained or dependent variable, while the actor's ends or goals become the independent variable. According to Banck these studies are closely related to, or have as their basis, exchange or game theory. The distinction Banck makes here is similar to the distinction between "communication-set" and "action-set" research. Thus he would argue that interaction theory is seen as the most suitable basis for "communication-set" research while exchange (or game) theory is more suitable for "action-set" type research. We suggest that most of the confusion stems from either a failure to define precisely the nature of theory, and consequently there is some confusion over the theoretical status of the network approach; or alternatively, from the use of a very restricted definition of theory accompanied by a demand that the network approach should immediately conform to all criteria of, or give up all claims to, theoretical status. In the last instance we are confronted by an "all-or-nothing" demand.

Mitchell's (1974:282) conception of theory becomes clear in the following statement:

'Some authors have written loosely about "network theory" as if the propositions about social networks constitute a tight, logically related set of notions which may be used deductively to analyze field material relating to social interaction.'

This notion of theory corresponds closely to Zetterberg's (1963) definition of "theoretical sociology" as constituting a set or system of interdependent and interrelated propositions. Given this restricted definition of theory it is obvious why Mitchell (1974:283) should argue that:

'.... there is no writer among those using social networks to analyze field data who does postulate a formal network theory. Those who use the phrase "network theory" usually imply by this nothing more than the set of notions used in network analysis,..... there is no network theory in the sense of basic assumptions together with a set of derived propositions which are interlinked and capable of being tested.'

This state of affairs is, however, not uncommon in the social sciences. We must therefore agree with Mitchell (1974:283) when he points to the fact that:

'.... there are very few theories in social anthropology of this kind....'

The same applies to sociology. However, we cannot exclude the possibility of the construction of such a theory some time in the future. We must therefore share Mitchell's (1974:284) optimism when he writes:

'.... concepts such as reachability, density, .. have their roots in presuppositions about the relationships between social links and behaviour. These presuppositions although they may at present be largely implicit, nevertheless may with further systematization and development, become accepted as "theory"... The problem about network theory is not whether there is such a thing but how explicit and consistent are the theoretical ideas behind analyses using social networks.'

It is indeed difficult to understand, given the relative newness of the network approach, why there should be this demand for immediate and absolute conformity to the criteria of what a majority of social scientists consider to be "good theory", before they will even consider the possibility of a network theory. That we have certain basic assumptions or presuppositions cannot be denied. Also, the existence of many (perhaps isolated) propositions and empirical generalizations cannot be denied nor wished away. Here, we suggest, is some of the "raw material" for such a theory; what is lacking is a purposeful and systematic effort to construct such a theory. The success of such an attempt will depend first, on our ability to establish relationships between the various key concepts so that we can develop a system of inter-related and interdependent concepts enabling us to describe and classify network data. Next it might prove useful to order our propositions in either an inventory of determinants or an inventory of results or, where possible, into a matrix which will specify all possible relationships between the independent and dependent variables of our propositions. The next logical step should be an attempt to reduce the size of our inventories or matrixes in order

to arrive at an axiomatic theory which, if successful, will satisfy all the criteria for "good theory".

Turning next to the origin of given, concrete networks we find that, as a rule, people recruit others to their networks on the basis of many different kinds of relationships. Mitchell (1969:41) points to the fact that the types of relationships people use for recruitment to networks vary with the situation and the position of the recruiting actor. Thus, although networks can be described as unique (see Mitchell 1969:43), they are obviously influenced by the situation and the position of the actor. The uniqueness of concrete networks stems from an element of choice in that the actor seeks, and is free to seek, to establish relationships with certain other people in terms of his interests in them. The choice of whom he wants to establish and maintain contact with is a personal or individual matter. Mitchell (1969:43) argues that although the actor:

'.... may be morally obliged to accept the approaches of a number of other people'..
(he) ...'will maintain contact only with those that he must.'

Finally a "note on method" is necessary.²⁾ Mitchell (1969:4) points to the similarity between a sociogram as used by Moreno and his followers, and a definition of social network where the focus is on the characteristics of the links in a relationship as a means of explaining the behaviour of the people involved in it. In spite of these similarities, however, Mitchell (1969:4) argues:

'There, is however, a difference between these ..' (sociometric) ..'studies which

'were based primarily on formal questionnaires and the ..' (network) .. 'studies which used the network concept as developed by Barnes and which have been based predominantly upon participant observation.'

However, care must be taken not to reduce the difference between sociometric studies and network studies to one of techniques. It would be wrong, especially in the case of the network approach, to insist that one technique (for example, participant observation) be used as the only reliable and valid method of data collection. There is, in short, a far more important, intrinsic, difference between the two approaches based on the already mentioned element of choice present in a network. In the case of recruitment to a network the recruiting actor is free to approach and maintain contact with those he wants to. Alternatively, as Mitchell points out (1969:43), he will maintain contact only with those that he must. In short, in the case of network studies, the observer places no restrictions whatsoever on the actor as to his freedom of choice of contacts. This is not true in the case of most sociometric studies where the actor's choice is limited by whatever restrictions the observer chooses to impose upon him. To ask a pupil to identify his "best friend" out of a group of twenty fellow pupils may have no bearing on any "real life" situation. This specification of the universe by the observer severely limits the freedom of choice of the actor. We suggest that it is this element of choice rather than the use of techniques which is the most important difference between the two approaches.

2. A CONCEPTUAL FRAMEWORK

2.1. Defining Networks

Mitchell (1969:9-10) identifies and distinguishes between three "orders of social relationships" which are present in all large scale, complex societies. This, he argues is true for at least all urban social systems; perhaps even true for all societies both simple, rural, complex and urban. First, there is the "structural order". Here the observer's focus is on position-relationships rather than on personal relationships. Consequently the actor's behaviour is interpreted and explained in terms of the position that he occupies in the structure of the social system. It is further assumed that whatever stability and regularity is exhibited results from the existence of such positions, which form part of the structure irrespective of whether or not there is an occupant. Often we find references to so-called "secondary relationships" when the writer has in mind such positional relationships. Secondly, we have the "categorical order". Here the behaviour of people in unstructured situations is analysed in terms of "social stereotypes". The social stereotypes identified by Mitchell (1969: 9-10) include those of class and race. Thus the individual's behaviour is taken as the dependent variable or the thing to be explained, and his class position, race, or ethnic identity is taken as the independent variable in terms of which his behaviour can be explained. Finally, and for our purposes most importantly, he identifies the "personal order". Here behaviour, in both structured and unstructured situations, is analysed in terms of (1) the personal links ego has with a set of people; and (2) the

links these people have among themselves and with others. The study of networks applies to this last category of social relationships.

A network defined as a set of links (lines or relationships) between points (or actors or "knots" or persons or individuals) seems to include all of those elements which are common to a large number of definitions.³⁾ A few examples will illustrate the point. For Mitchell (1969:26):

'A network exists in the recognition by people of sets of obligations and rights in respect of certain other identified people.'

Consequently he (Mitchell 1969:2) defines a social network as a:

'.... specific set of linkages among a defined set of persons, with the additional property that the characteristics of these linkages as a whole may be used to interpret the social behaviour of the persons involved.'

Somewhat more inclusive is Katz's (1966:203) conception when he defines networks as:

'.... the set of persons who can get in touch with each other.'

For Barnes (1969:58), the notion of network refers to:

'... a set of concrete interpersonal relationships linking individuals with other individuals,

Kapferer (1969:182) defines a (egocentric) network, or reticulum as he prefers to call it, as:

'.... the direct links radiating from a particular Ego to other individuals in the situation, and the links which connect those individuals who are directly tied to Ego, to one another.'

Finally, Epstein (quoted by Mitchell in Holleman 1964:41) defines a network as:

'... a covert or informal structure composed of interpersonal links which spread out and ramify in all directions, criss-crossing not only the whole of the local community, but knitting together people in different towns, and in town and country.'

Differences between writers tend to reflect differences in emphasis, inclusiveness and differences concerning the applicability of network analysis. With reference to its application Barnes (1972:3) stresses the importance of focussing on:

'..... how A, who is in touch with B and C, is affected by the relation between B and C.....'

Similarly Nadel (quoted by Barnes 1972:3) emphasizes the same point when he writes:

'..... I wish to indicate the further linkage of the links themselves and the important consequences that, what happens so-to-speak between one pair of "knots", must affect what happens between other adjacent ones.'

Thus, for both Barnes and Nadel the important defining criterion of the network approach, as distinguished from other approaches, lies in its focus on the "linkage of the links themselves" and the consequences of this for the behaviour of any one actor on which the network is anchored. By making a focus on the "linkage of the links themselves" a necessary prerequisite for network analysis, restrictions are placed on the application of the approach, making network studies less inclusive than would be the case should one adopt, say, Mitchell's definition. In the more inclusive definitions

the importance of the characteristics of the links themselves for behaviour are stressed. Thus the presence of "linkage of the links" or, alternatively, its absence, can be viewed as a characteristic of a particular, concrete network. One could conceive of this characteristic as being placed on a continuum stretching from one theoretical extreme representing a total lack or absence of, to a complete or total presence of, a "linkage of the links". Most probably most concrete networks will fall somewhat short of these extremes. The emphasis on the linkage of the links as an important characteristic of networks cannot be denied. However, we do challenge the notion that it is a necessary prerequisite for network analysis.

By restricting the *kinds of relationships* that qualify for inclusion in a network, further restrictions are placed on the network approach. Once again Barnes' work provides an example. For him network links are based only on kinship, friendship and neighbourliness. Mitchell (1973:22) disagrees and adopts a position where:

'.... the social network is thought of as the actual set of links of *all kinds* among a set of individuals and not as Barnes, Bott and Befu argue only of the links of kinship, friendship and neighbourliness.'

(Italics mine)

For Mitchell (1973:22) kinship, friendship, etc., are:

'.... only specific aspects of the linkages among individuals which may be abstracted from the amalgam of all linkages in which pairs of individuals may be involved.'4)

Finally, another kind of restriction imposed by researchers, perhaps as a result of the complexity of the subject matter, results

in a conception of networks that is close to the idea of a digraph in graph theory.⁵⁾ This practice is so common, however, that it merits mentioning at this early stage. Mitchell (1969:3) refers to this when he writes:

'The notion of the social network that Barnes (1954) introduced in his study approximated to that of a digraph in that the connections between the persons were thought of in terms of single links....'

Also:

'The notion of network used by Bott (1957), Philip Mayer (1961), Epstein (1961), Pauw (1963), and Adrian Mayer (1966) is closer to the idea of digraph since they restrict the persons in a given network to a finite number and they do not take particular account of the multiplexity of links of the persons in the network.'

Any attempt at defining and clarifying networks would be incomplete without a discussion, however brief, of the group—non-group continuum. Thoden van Velzen (1973:219) argues that the study of networks focused our attention on the problems of non-groups. Similarly, Barnes (1969:54) argues that:

'The notion of network has been developed in social anthropology to analyse and describe those social processes involving links across, rather than within, group and category limits.'

For Barnes (1969:54) the network concept is indispensable in:

'..... discussing those situations where, for example, the individual is involved in "interpersonal relations which cut across the boundaries of village, sub-caste and lineage."'

With reference to the group—non-group distinction Boissevain

(1973:19) sees social relations as lying on a continuum. At the one extreme we have personal networks followed by quasi-groups, then interactional groups, corporate groups, institutional complexes and finally, at the other extreme, societies. For Srinivas and Beteille (1964:166) there are two important discriminating characteristics of groups and networks. They see groups as being both "bounded" and "objective" whereas networks are unbounded and not objective. In their conception of objectiveness we find the notion that boundaries are the same for members (insiders) and non-members (or outsiders). Also by representing the network from the point of view of the actor and hence coming to the conclusion that there are as many networks as there are actors in the social system, they clearly illustrate their position as regards the objectiveness of networks. Boundedness clearly includes the notion of finiteness. Thus by definition we could argue that groups are finite whereas (partial) networks are, theoretically speaking, infinite.

The notion of boundaries, although with reference to other aspects of networks, also figures in the work of Niemeijer (1973:51). For him the number of relationships crossing a boundary between segments of a network can serve as an indicator of the relationship between network segments. Obviously the social significance of cross-linking relationships may be great. According to him:

'If there are only a few cross-linking relationships and if it is also important for persons to reach into the other segment, one may expect the operation of brokers. One could also hypothesize that leaders will find it more difficult to organize supporters in other segments than their own when confronted with an important boundary.'

(Niemeijer 1973:51)

Niemeijer (1973:51) also suggests that we can measure the relative strength of such a boundary by using the formula:

$$B = \frac{100 \times CL^{12}}{N_1 \times N_2} \quad (\text{Formula 1})^6$$

In this formula which is based on the density of actual relations on the boundary:

B = density on boundary

CL¹² = number of cross-links between segments 1 and 2

N₁ = size of segment 1

N₂ = size of segment 2

Kapferer's notion of cross-linkage is similar to Neimeijer's notion of boundary density. He (Kapferer (1973:97)) defines cross-linkage as:

'.... the number of interactional relationships out of the total possible linking the members of separate clusters within a network.'

The above discussion clearly illustrates the two conflicting uses of the notion of a boundary. On the one hand it is used to distinguish networks as non-groups from groups. On the other it is used to distinguish between divisions (clusters, cliques, segments, etc.) within a given concrete network.

Returning to the network-group distinction we conclude with the view of Mitchell (1973:33). He argues:

'.... the distinction between social relationships seen as social networks as against corporate groups (or as quasi-groups) is primarily a matter

'of the level of abstraction at which we are able to operate in summarising the regularities that we can discern in social relationships as a whole. Social networks are in no way distinct from corporate groups for as Barnes has pointed out: "It may be useful to look at the networks of relationships within a religious cult, or between participants in a system of exchange in isolation from relationships of other kinds"'. .

Moreover,

'.... networks of relationships are the starting point in the analysis of group behaviour and that they exist as analytical constructs which the observer erects partly by taking the participants' perceptions into account and by fitting together observations not available to the participants themselves.'

2.2. Total and Partial Networks

2.2.1. Total Networks

Barnes (1969:53) who took his idea of the "total network" from Radcliffe-Brown defines it as constituting all the "social bonds" between the constituent individuals. Originally, according to Mitchell (1969:12), he had in mind:

'.... the general ever-ramifying, ever reticulating set of linkages that stretches within and beyond the confines of any community or organization.'

Mitchell (1969:12) points to the fact that Barnes' notion of "mesh" refers to the network as a whole and that it is not related to any specific reference point in the network. It is this idea which, according to Mitchell, is sometimes denoted by the phrase "total network". Thus we have two criteria which distinguish total networks from all other 'non-total' (partial, segmented, personal, egocentric,

socio-centric) networks, viz.:

- (a) it includes all links (relationships) irrespective of content between defined actors;⁷⁾ and
- (b) the network is not anchored; i.e., no "starting point" or point of reference is specified by the observer.

Further clarification of the phrase "total network" is facilitated by the bounded-unbounded, finite-infinite distinctions. For Barnes (1972:15)

'A boundary ought to imply a discontinuity, and a social boundary a discontinuity or change in quality of social relations. To make sense, there should be individuals on the far side of the boundary who are differentiated from those inside the boundary. In a truly *isolated society*,, there would be a *finite number* of members in the total network and they would have no external relations with anyone else.'⁸⁾..... (Thus we have).... 'a *finite but unbounded* total network. The only completely isolated social system now existing embraces the whole world, and the total network that sustain it may be described as finite but unbounded. the worldwide, finite, but unbounded total network is the only existing total network, and all possible total networks must be finite but unbounded.'

(Italics mine)

To our two previously identified criteria of total networks we must now add two more, viz.:

- (c) a total network is always finite; and
- (d) it is always unbounded.

Harries-Jones' (1969:301) conception of total network is somewhat at variance with Barnes' conception of a total network as a finite network. For him a total network consists of:

'..... a set of elements (people) and a set of relationships (links) in which the set of people may or may not be finite and the set of links may or may not be finite.'

Surely this definition must come pretty close to qualifying for the title of non-definition. Not only does it fail to distinguish between total and non-total networks but it is also somewhat confusing to include in a definition a notion (finite-infinite) which seems to make no material difference for the definition.

In addition to a distinction between total and partial⁹⁾ networks, some writers identify what can best be described as the different components of the total network. Katz (1966:203-204), for example, distinguishes between:

- (1) actual networks, i.e. "ego's actual networks refer to the contacts, latent and activated, who are currently in ego's networks."
- (2) potential networks, i.e., "... the *possible* networks of which he can be a member" and
- (3) proximate networks which are "made up of persons who are *likely to* establish interaction."

In this conception the components — actual, potential and proximate — taken together constitute the total network. Similarly, it could be argued that Boissevain's (1973:291) "intimate", "effective" and "extended" zones of a network together form a total network. For him the "intimate zone" is composed of all the persons with whom the anchor person is on closest terms; the "effective zone" includes all people with whom the anchor person is on less intimate terms and

from which he can expect less; while the "extended zone" would include all people not personally known to the anchor person but whom he can contact if he wants to. Epstein (1969:110-111) identifies two components of the total network which he calls respectively the effective network and the extended network. The former includes:

'Those people with whom' ... (a person)...
'interacts most intensely and most regularly, and who are therefore also likely to come to know one another, that is to say that part of the total network which shows a degree of connectedness, I propose to speak of as forming the *effective* network: the remainder constitute the *extended* network.'

It is interesting to note that of these two components the last (extended) represents a residual category. Having defined effective network, everything that does not qualify in terms of this definition is labelled extended. In order to distinguish between these two components of the (total) network Wheeldon (1969:134) developed two rather crude quantitative criteria which he describes as follows:

- (a) 'People with whom ego has a relationship in which may be distinguished three or more strands are part of the effective network.'
- (b) '..... people with whom ego has a relationship based on only one or two...' (or none?)
... 'strands fall into (the) extended network.'

Although some of the above concepts were developed by researchers in response to concrete (non-total) networks, there seems to be no logical reason why they cannot be taken also as components of the total network. The only criterion of total

networks not satisfied by the conceptions of Boissevain, Epstein and Katz is that which specifies that a total network has no anchorpoint. Of the four criteria identified earlier this one seems to be the least important. Most important seems to be the criterion that the total network includes all links (relationships) irrespective of content between defined actors. This criterion together with finiteness and unboundedness can, without stretching one's imagination too far, easily be met by their conceptions.

2.2.2. Partial Networks

By "partial network" Barnes (1969:57) means:

'... any extract of the total network based on some criterion applicable throughout the whole network.'

Here the partial network defines particular "social fields" (see Blok (1973:151-152)), for example, kinship, or economic, or religious or political relationships. Trouwborst (1973:111) adopts a similar position when he defines a partial network as:

'.... that part of an individual's network which consists of social relationships with a like content.'

Unlike Barnes, however, Trouwborst regards a partial network as being anchored in an individual and not as ever ramifying chains of dyadic relationships involving specific fields of activity without a specified point of origin.

Harries-Jones' definition and conception of a "category" is again very similar to Barnes' notion of partial networks. He writes:

'Within "total network" arises a "category" which is a finite set of people and a finite set of links, the set of links between people being defined either by the observer in virtue of the set of people having at least a single social attribute in common, or defined by a multiple of individuals in virtue of their regarding the set of people as having at least a single social attribute in common.'

(Harries-Jones 1969:301)

Closer to Trouwborst's notion of partial networks, however, is Harries-Jones' (1969:301) conception of personal networks. A personal network is seen as:

'.... a sub-set of the total network, the sub-set having a finite number of persons and associated links. The sub-set is termed an "ego-centred" or "personal" network if it has the property that an ego has a "pole-position" in the sub-set so that all other persons and their links are ordered with reference to this "pole-position."'

Mitchell's (1969:26) definition of "personal-networks" stresses the fact that such a network is anchored plus the fact that it is based on some, rather than all the possible links in the whole network.

For him a personal network:

'..... exists situationally in the sense that the observer perceives only those links of the total set of potential links which are activated and being used by the actor at any one moment, and which the observer considers are significant for the problem he is interested in.'

The notion of partial networks, as used by the above-mentioned writers differs with respect to:

- (1) The question of whether or not such a network has a "starting point" or anchor. For Barnes, for

example, the answer is no, for Mitchell, yes. This difference is often indicated by using a special concept to indicate such an absence or presence of an anchorpoint. Thus we find the idea of a "personal" or "egocentric" network to indicate the presence of an anchor. Alternatively, "category" or "partial" (for Barnes) indicates the absence of an anchor.

- (2) Partial networks may be an abstraction of the observer in that he focuses only on those links assumed to be sufficient for an understanding and explanation of a particular problem or issue. For others it could also be a creation of the actors themselves thus the observer will in such a situation operate with the actors' definition of the situation.

These notions of partial networks do have in common, however, the following:

- (1) That the observer operates with a given, i.e., specified, number of people. It is for this reason that we find reference, rather confusingly, to the finite nature of such partial networks. Nevertheless, the idea expressed here stresses the fact that partial networks can only include some, never all, individuals.
- (2) Secondly, these notions share the idea that the focus is on some, never all, possible links between a set of actors. Barnes, for example, restricts it to kinship, or friendship, or neighbourliness.

The fact that most conceptions of partial networks seems to include the above ideas does not make both restrictions on the

number of people and restrictions on the kinds of links defining criteria. It must be stressed that a restriction on the kinds of links tends to be used by most writers as the defining criterion when they distinguish between partial and total networks. Restrictions on the number of people to be included in any one (partial) concrete network is more often than not a pragmatic decision. The use of only a limited¹⁰⁾ number of links as defining criterion presents some problems. This is illustrated by the following two hypothetical networks. In the one we include all people in the world but focus only on, say, economic relations. Clearly here we have a partial network in terms of our definition. The problem arises when we study all links between a specified number of people where restrictions on the number to be included is for pragmatic reasons only. In this, our second case, we do not have a partial network if we restrict our definition of the latter to limiting the kinds of relationships. Neither do we have a total network in terms of our earlier definition. It is, therefore, clear that, should we decide to retain only the one defining criterion to identify partial networks, then we need a new concept to indicate those situations where there are restrictions only on *membership and number of links and not on content of links*. To indicate this breed of animal we propose the term "segmental network". Thus we have two theoretical possibilities. On the one hand nothing is said about the number of links or people to be included in a network with restrictions only on the kinds of links to be included. This is a "partial" network. On the other, limitations are placed on the number of links and people to be considered members but, once included,

we look at all possible links (in terms of content) between them. This is a "segmental" network. In practice most researchers will place restrictions on both numbers, order of links and kinds of links to be studied so that they will be dealing with partial-segmental networks. No researcher can ever hope to include in his study all people. For various reasons – time and money being the most important – we must restrict the number of people and order of links (not kinds of links) that are to be included in a particular concrete network. Depending on who we include and the order of relations between them, we can identify or distinguish between different orders of segmental networks. Here the work of Barnes (1969) is of great importance. It allows the researcher to specify exactly the scope of his investigation by combining this information with a specification of the kinds of links to be included in the study.

2.2.2.1. Segmental Networks

First Barnes (1969:58) identifies a primary or first-order star. This includes an anchor person "A" plus all individuals with whom "A" has direct contact. These individuals adjacent to "A" are described as "primary or first-order contacts".

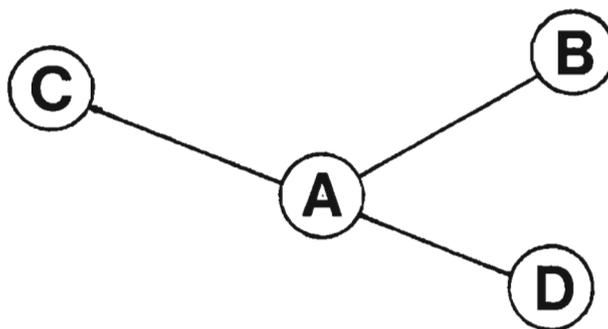


Diagram 1: First-Order Star

This conception is similar to Mitchell's bounded egocentric network.

Next if we focus on:

'.... the set of all relationships between two'... (or more) ... 'persons, each of whom is either Alpha or one of his contacts'

(Barnes 1969:59)

then we have "A's" primary or first-order zone.

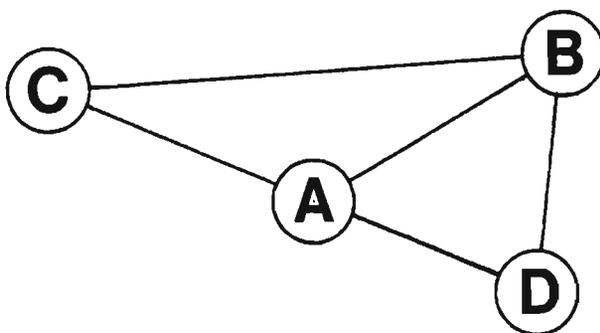


Diagram 2: First-Order Zone

Thus the first-order zone = the first-order star + all links between Alpha's contacts.

We may also assume that if "A" is in contact with "B" that he has at least indirect contact or access to all of "B's" contacts through "B". Barnes (1969:59), therefore, argues that "A" has "second-order" contact with all of "B's" contacts who are not at the same time adjacent (i.e., first-order contacts) to him. Ego's second-order star is therefore defined by Barnes (1969:59) as:

'.... the set of all relationships between two'... (or more) ... 'persons, one of whom is either Alpha or one of his first-order contacts,.....'

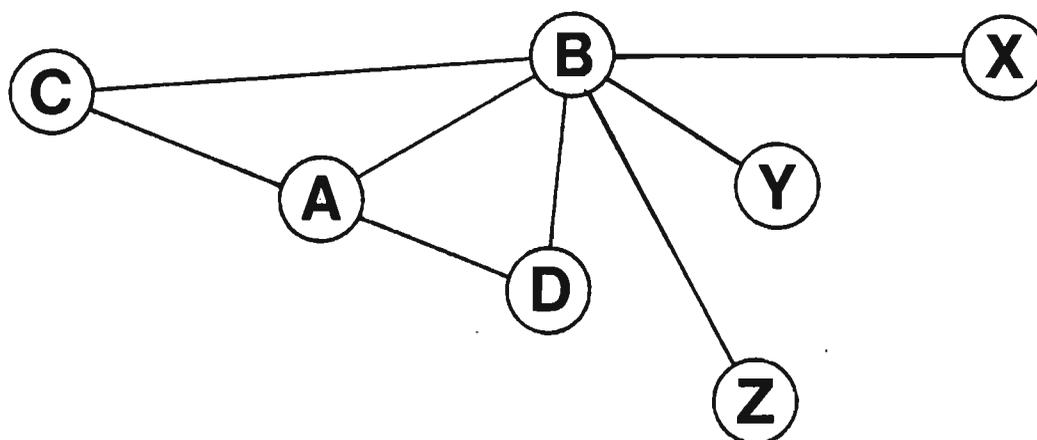


Diagram 3: Second-Order Star

"A's" second-order zone is, according to Barnes (1969:60):

'.... made up of all the existing relationships between two persons, each of whom is either Alpha or one of his first- or second-order contacts.'

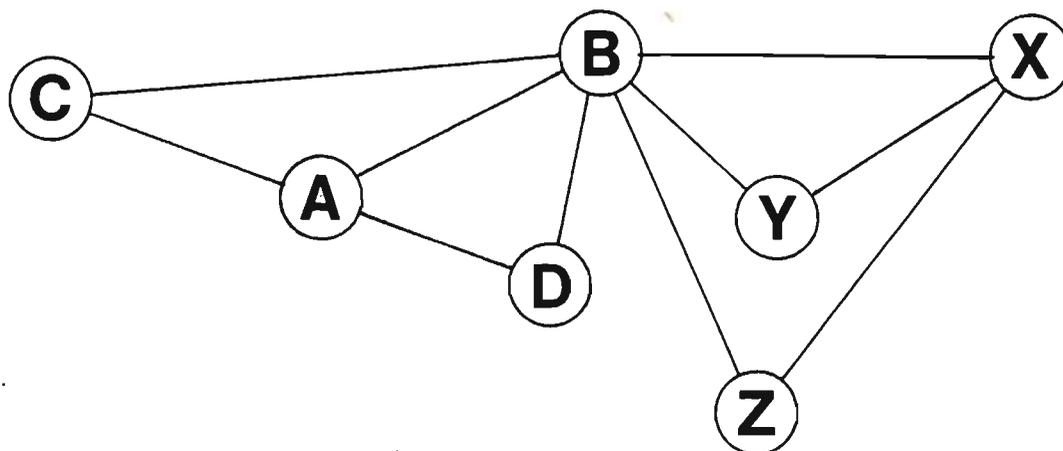


Diagram 4: Second-Order Zone

The same procedure could be followed to arrive at a third-order star, third-order zone and so on.

To summarize the above:

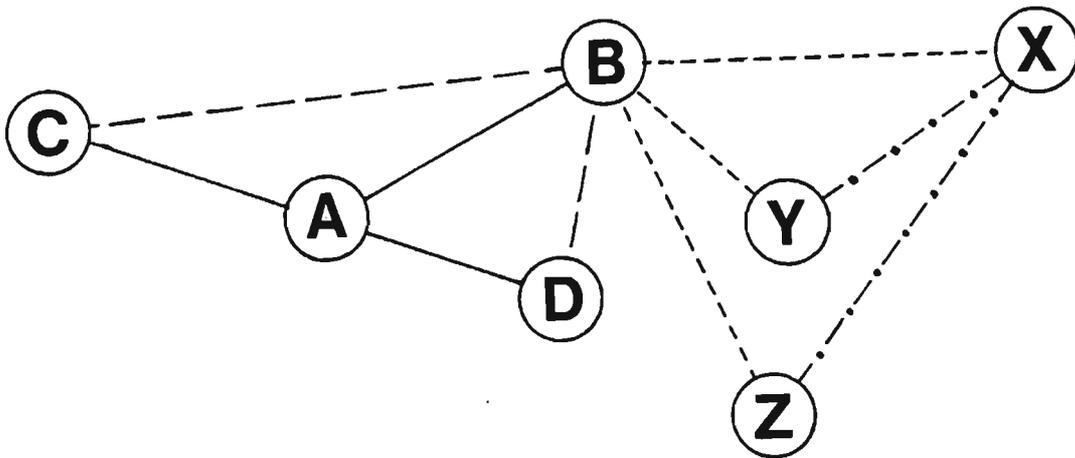


Diagram 5: Summary

- = first-order star
 ————— + - - - - = first-order zone
 ————— + - - - - + - - - - = second-order star
 ————— + - - - - + - - - - + - . - . = second-order zone

In these constructs the "star order" indicates the restrictions placed on the number of people included in a particular network, while the "zone order" indicates the number of relationships considered pertinent by the investigator. Also, by defining the stars and zones with reference to some person (A) these constructs of Barnes are egocentric and not socio-centric.

Should we now add to the already mentioned restrictions, restrictions as to the *kinds* of relationships to be included in any given concrete network then we have a segmental-partial network. Once again, restrictions as to the kinds of links or relationships to be included in any one concrete network seem to be inevitable, due to the complexity of the material and the difficulty in dealing with more than a handful of variables at any one time.¹¹⁾

2.3. Communication-Sets, Action-Sets, and Related Concepts

2.3.1. Communication-Sets

As mentioned earlier many network studies concentrated on the flow of communication through networks. In general the focus has been on the diffusion of rumours, gossip and ideas among a defined set of people. Studying the transmission of information would also fall into this category. Mitchell (1969:36) points to those studies interested in:

'..... the flow of communication through networks, especially in relation to the definition of norms, in what might' ... (be) ... 'called a "communication-set."'

Within such a communication-set Harary, Norman and Cartwright (quoted in Harries-Jones (1969:302-303)) identify a "commune". They think of a commune as a "strong set" in a communication-set, in other words it is:

'..... a maximal collection of people who can engage one another in two-way communication, so that if a message was transmitted to one member of this "commune" all other members would be bound to receive it'.

(Harries-Jones 1969:302-303)

From the above it is obvious that a commune represents certain aspects of reachability in such a communication-set.

2.3.2. Action-Sets

The activating or mobilization of some links in a network, for a limited period in order to achieve a specified goal or end, results in what Adrian Mayer (1966) calls an "action-set". Here, as Mitchell (1969:38) points out, the emphasis is on the flow of goods and services through the network. In addition, the transactional element is of great importance. As we saw it is this element which enables us to distinguish between network and action-set links.

Similar definitions are adopted by other authors. Harries-Jones (1969:301-302), for example, defines an action-set as:

'..... a series of links within a personal network which describes ego's communication for a specific purpose over a short period of time. an "action-set" is,, oriented to ego and arises as a subset of ego's personal network. It describes an interacting series of people that have purposively been brought into relation by a single individual. An action-set over time will change.'

For Harries-Jones the personal network constitutes empirical reality whereas the action-set represents an abstraction from the personal network.

Thoden van Velzen (1973:222), in agreement with Mayer and Harries-Jones defines an action-set as:

'.... a set of persons who have, for one particular purpose, attuned their actions to each other.'

According to Harries-Jones (1969:302) repetitive use of action-set links may result in the formation of a "clique" or "faction". The former is defined by:

'..... the interaction of its participants in relation to the organization of the co-activity of the participants. A "clique's" participants have considerable interaction and the pattern of their co-activity shows diffuse organization analogous to that of a group. However, a clique lacks the corporate and persistent characteristics of group activity and is hardly likely to survive changes in personnel.'

A clique when defined as a set of people all of whom know one another tends to be rather restrictive. It is to overcome this problem that Barnes (1969:64) introduced the concept "cluster". In this sub-set of the personal network we have a number of people whose links with one another are, comparatively speaking, dense without the requirement that they all know each other. In other words a 100% density is not insisted on. To operationalize this concept Barnes suggests the following two thresholds, viz., (a) at least five members; and (b) a density of 80%. To qualify as a cluster a sub-set must satisfy both criteria. He suggests, however, that other thresholds may be used. Niemeijer (1973:54) disagrees and finds this procedure unacceptable. He argues that any threshold method leads to contradictions if based on density. This is because of the relationship between network size and density. In short:

'To keep the density at a certain level one should add to a cluster persons with an increasing number of relations with its members.'

(Niemeijer 1973:55)

He accepts Barnes' definition of a cluster as a "comparatively dense" set but feels that we need an additional criterion in order to distinguish between clusters and non-clusters. Such a criterion cannot be found in:

'... a comparison between cluster density and network density.'

(Niemeijer 1973:55)

Because of this he argues that a cluster has a low number of external relations in regard to its internal relations.

There is nevertheless still some confusion in the literature. Kapferer (1973:97) for example, refers to "clustering" and defines it as:

'... the extent to which there is a tendency for the individuals in a network to be *clustered* into independent *cliques*.'

(Italics mine)

Thoden van Velzen (1973:225) introduced the notion of a "compartment" which is for all practical purposes the equivalent of Niemeijer's cluster.

"Factions" mentioned earlier as something which results from the repeated use of action-set links is defined by Adrian Mayer (1966:116) as:

'.... units of conflict, activated on specific occasions rather than maintained by formal organization'

Finally, we must consider the relationship between action-sets and so called quasi-groups. Adrian Mayer (1966:115) writes:

'When successive action-sets are centered on similar contexts of activity, personnel and linkages may also be similar. By "superimposing" a series of action-sets, therefore, one may discern a number of people who are more often than not members of the action-sets, and others who are involved from time to time. Taken together, these people form a catchment for ego's action-sets based on this type of context, the word quasi-group, best expresses the sociological implications of this type of collection of people and suggests the qualitative difference between the quasi-group and the group.

The quasi-group, then, has the same pattern of linkages as the action-set, and exists through a series of contexts of activity without any formal basis for membership.'

This notion of a quasi-group is very similar to Harries-Jones' ideas concerning the formation of cliques and factions. In all three instances do we find the repetitive use of action-set links. Perhaps Mayer's "quasi-group" is a more inclusive term consisting of, at least, two components, viz., cliques (or clusters) and factions.

2.4. Characteristics of Networks

Given the assumption underlying the network approach; that there is a relationship between network and human behaviour, it becomes absolutely vital to distinguish between different networks. This distinction entails a specification of network characteristics. Unfortunately

'.... there seems to be no commonly accepted set of criteria which might be used to distinguish the characteristics of one type of network from another.'

(Mitchell 1969:10)

Mitchell's (1969:11-29) own contribution represents the first, and to date most important, attempt to identify and define the characteristics of networks. He identifies both several morphological or structural and interactional characteristics. Morphological characteristics refer to:

'..... the relationship or patterning of the links in the network in respect to one another.'

(Mitchell 1969:12)

The interactional characteristics or criteria refer to:

'.... the nature of the links themselves.'

(Mitchell 1969:12)

Altogether he identifies four morphological criteria, viz., anchorage, density, reachability and range; and five interactional criteria, viz., content, directedness, durability, intensity and frequency of interaction. These criteria represent those aspects of the network most often included in network studies. Here, in discussing each characteristic, we closely follow Mitchell's presentation.

2.4.1. Morphological Characteristics

2.4.1.1. Anchorage

The question of whether a network should be regarded as having a "starting point" or whether it merely implies a number of people plus the links between them, has been mentioned earlier. Barnes' initial definition of networks did not call for such a point of reference or point of orientation. Conversely, for Mitchell (1969:13),

'... a network must be traced from some initial starting point: it must be anchored on a reference point.'

Most other writers seem to agree with this position, because they use a specified individual as a point of anchorage. Kapferer (1969:182), for example, refers to "the links" radiating from a particular ego to other individuals in the situation. Blok (1973: 151-152) also refers to networks which are defined with regard to a single individual. This emphasis on a single individual as a point of anchorage has led to the identification of this type of network as "egocentric". Sometimes we also find references to "personal networks" indicating that it is anchored in a given person or individual. Blok (1973:151-152) argues that when we define a network as egocentric or personal, it is implied that it is a personal creation of ego which will dissolve on the death of ego. Barnes (1972:4), however, is of the opinion that it is a construction of the observer or investigator. We must admit that in reality it may be either or both.

For Epstein (1969:109) a network is also egocentric in that it exists only with reference to a given individual. Similarly, Harries-Jones (1969:301) refers to an egocentric or personal network when it has the property that a particular person has a "key-" or "pole-"position, which means that all other persons and their links are ordered with reference to this key-position.

There are, however, those writers who feel that the anchor-point need not be a single individual. Bott (1957, 1971), for example, uses the notion of a "joint network" by which she refers to the

relationships which a couple together have with some other people.

Barnes (1972:5) also puts forward the suggestion that a network may be anchored on a group. This may be problematical as Mitchell (1969:14-15) points out in the following extract:

'.... a group is itself an abstraction derived from a consideration of selected aspects of the total social behaviour of the people considered to be group members'... (Thus)... 'a link connecting one group to another can only mean that the groups as wholes are in some sort of relationship to each other. A network anchored on groups in this way could be constructed but care would have to be taken to ensure that the links connecting the groups all represent the same level of abstraction.'

In addition, Mitchell (1969:15) feels that:

'A more cogent objection to the use of groups as points of anchorage for networks turn on the importance of the idea of multiplexity of social relationships among people in a social network. The relationships that link the people who form a group are by definition single-stranded relationships, those in a network may be multiplex.'

Barnes (1972:4) argues that in addition to single individuals or groups a network may also have more than one member who is central and, therefore, a point of departure. We could overcome this problem by postulating the existence of overlapping networks, i.e., networks with overlapping membership. This being acceptable in the case of group membership, there is no logical reason why networks should not be similar in this respect.

A far more significant suggestion comes from Barnes (1972:4) when he insists that an egocentric network can only be

significant sociologically speaking, when ego is a "central" person. Although "central" or centrality is not defined we do get some indication of what he means when he uses such phrases as:

'Someone'... (is) ...'at the centre of a web of intrigue' (or someone is)
'a kingpin in the organization.'

This notion may be especially important if we intend using a particular individual as representative (as far as is possible) of a given group or category of people. Here centrality refers to the fact that such a person should conform to all (or most) of the defining criteria of the group or category of which he is a member. As such it is somewhat different from that which Barnes had in mind when he developed the idea. Should the notion that an individual may represent a group or category of people be acceptable, it may prove to be a way out of the dilemma posed by the belief in the usefulness of network analysis and the call for a method (technique) of gathering pertinent data rapidly. (See Boissevain (1973:147.))

2.4.1.2. Reachability

The notion of reachability as used by Mitchell (1969:15) implies that:

'.... every specified person can be contacted within a stated number of steps from any given starting point.'

Similarly, Kapferer (1969:221) defines reachability as:

'.... the number of steps each person must go through to reach everyone else in'... (the network.)

Barnes' notion of "mesh" also relies on the idea of reachability,

while the term "commune", referred to earlier, similarly, represents some aspects of reachability.

Elsewhere Barnes (1972:14) described reachability as:

'.... a measure of the extent to which an individual can establish indirect contact with other members of a network.'

The emphasis on "indirect" is somewhat surprising and confusing making Barnes' definition of reachability less inclusive than that of either Mitchell or Kapferer. Whereas the latter two authors include in their measure of reachability ego's first-order contacts, this is not the case with Barnes.

Another possible source of confusion is contained in Mitchell's use of the phrase "every specified person" and Kapferer's use of the phrase "to reach everyone else". This seems to imply that any member of a given network can reach every other member of the same network on condition that there is no restriction on the number of steps allowed. It is obvious that this is certainly not intended by Mitchell since he gives examples of networks where not all members can reach all other members either directly or indirectly. (See Mitchell (1969:16.))

The importance of the notion of reachability is clear from the following statement by Mitchell (1969:15):

'The degree to which a person's behaviour is influenced by his relationships with others often turns on the extent to which he can use these relationships to contact people who are important to him or alternatively, the extent to which people who are important to him can contact him through these relationships.'

Mitchell (1969:18-19) argues that, from a sociological point of view, the notion of reachability is more important than the notion of "density"¹²⁾ because:

'.... norm enforcement may occur through transmission of opinions and attitudes along the links of a network. A dense network may imply that this enforcement is more likely to take place than in a sparse one but this cannot be taken for granted.'

Some of the information available on the relationship between reachability and behaviour seems to indicate that:

'.... a member from whom many others are reachable will be in a more powerful position than someone who can reach few others,....'

Also:

'.... the shorter the distance from one member to another, the greater the influence the former can exert on the latter.'

(Barnes 1972:14)

The concept of "centrality" obviously relates to these findings. A person who occupies a central position in the structure of a network must be one "from whom many others are reachable".

The notion of reachability enables us to distinguish between networks on the basis of their relative "compactness". Thus if we can reach a given proportion of people in a specified number of steps in one network, then that network is more compact than a second one where we reach a smaller proportion of people in the same number of steps and less compact than a third one where we reach a larger proportion again in the same number of steps. Mitchell

(1969:16-17) illustrates this point by the following three hypothetical networks,¹³ viz.:

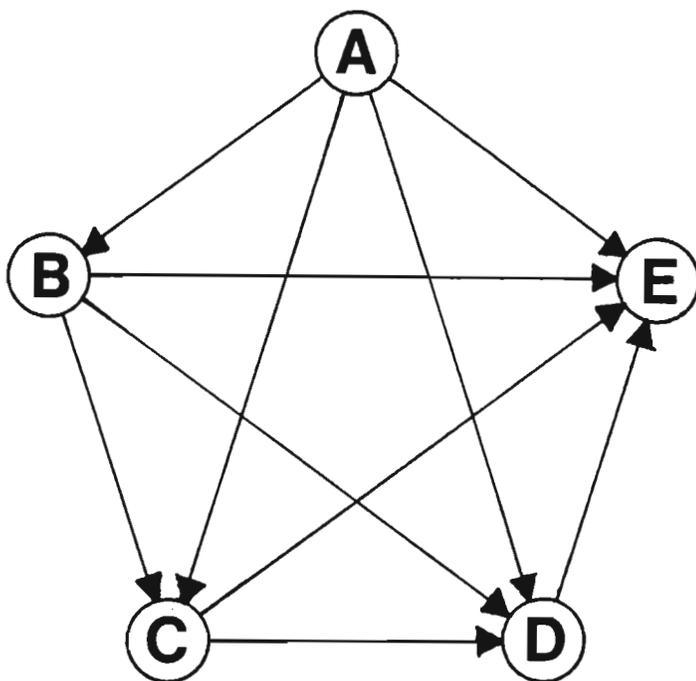


Diagram 6: Hypothetical Network A

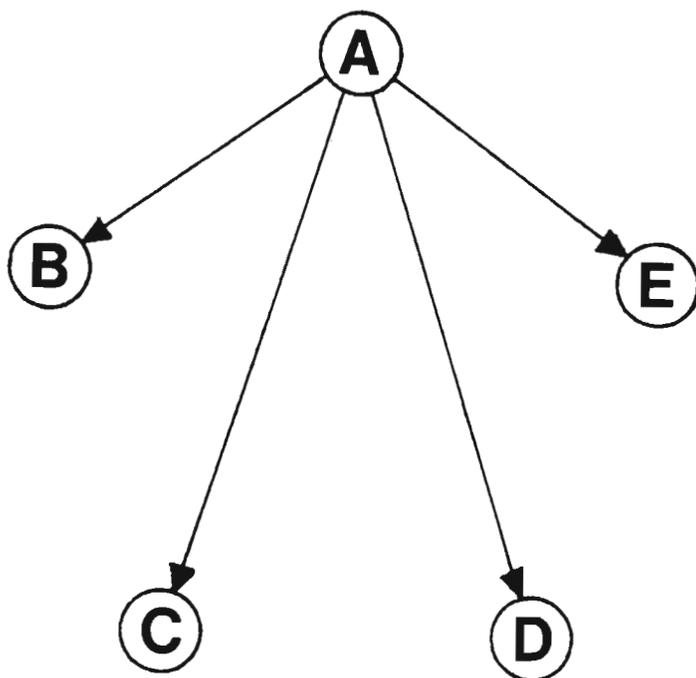


Diagram 7: Hypothetical Network B

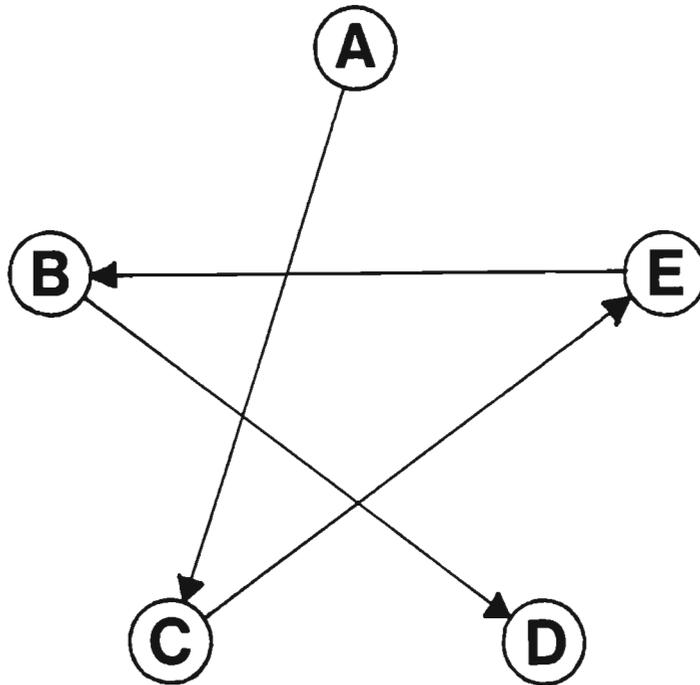


Diagram 8: Hypothetical Network C

The reachability in each of the three networks can be presented in a (so called) distance matrix. Here the number of steps necessary to contact or reach given points, from other specified points, appear in the intersection of the rows and the columns. This gives us for the three networks, the following matrices.^{14) 15)}

Matrix A:

	A	B	C	D	E	
A	0	1	1	1	1	4
B	X	0	1	1	1	3
C	X	X	0	1	1	2
D	X	X	X	0	1	1
E	X	X	X	X	0	0
	0	1	2	3	4	10

Matrix B:

	A	B	C	D	E	
A	0	1	1	1	1	4
B	X	0	X	X	X	0
C	X	X	0	X	X	0
D	X	X	X	0	X	0
E	X	X	X	X	0	0
	0	1	1	1	1	4

Matrix C:

	A	B	C	D	E	
A	0	3	1	4	2	10
B	X	0	X	1	X	1
C	X	2	0	3	1	6
D	X	X	X	0	X	0
E	X	1	X	2	0	3
	0	6	1	10	3	20

With reference to the compactness of networks Mitchell (1969:16) identifies and distinguishes between two distinct dimensions, viz.:

...(a) 'the proportion of people who can ever be contacted by each person in the network and'... (b) ...'the number of intermediaries that must be used to contact others or, in other words, the number of links that must be traversed to reach the people concerned.'

Because there exists no measure which expresses the compactness of a network by taking these two dimensions into account Mitchell (1969:17) suggests that we use as such a measure the:

'.... average number of points reached over all steps in a network.'

In matrix A, for example, point A can reach four points (B,C,D and E)

in one step; point B can reach three points (C,D and E) in one step; C can reach two points (D and E) in one step; D can reach one point (E) in one step; while E can reach no other point in the network. Additional steps from each point will not lead to any further points. Thus a total of ten points may be reached in one step from all five points in the network. These ten points when averaged for the five persons over all steps become two points. This means that each member of the network can reach, on average, two others in one step. In network B, by contrast, A can reach four points (B,C,D and E) in one step while points B,C,D and E can reach no other point in the network. No additional steps will change the situation. Thus a total of four points may be reached in one step from all five points in the network. These four points when averaged for the five persons over all steps become 0,8 of a point. This means that each member of the network can reach, on average, less than one other member in one step. From the above it follows that network A, with a "score" of two, is more compact than network B with a "score" of only 0,8.

2.4.1.3. Density

It is interesting, given the network idea, that most writers should follow Bott (1957) in distinguishing between "close-knit" and "loose-knit" networks. Thus, Barnes' (1969:61) concepts "large mesh" and "small mesh" correspond closely to Bott's terms loose-knit and close-knit. Epstein's (1969:110-111) reference to "connections" in his definition of the effective network also relates to this distinction of Bott. Subsequently, others, for example

Cubitt (1973:71), have argued that it would be more correct to refer to "close-knit" (high density) areas within a given network, since most (overall) networks tend to be loosely-knit. Here the focus is on the distinction between close-knit and loose-knit areas of a given network rather than on the density of the network as a whole. Nevertheless, in one way or another, most writers refer to an aspect of networks which they identify variously as either: "close-knit" or "loose-knit", e.g., Bott (1957); or "connectedness", e.g., Bott (1957), Epstein (1969), Reader (1964); or "completeness", e.g., Barnes (1969); or "large-mesh" or "small-mesh", e.g., Barnes (1954), or, most commonly, "density", e.g., Mitchell (1969, 1973, 1974), Kapferer (1969, 1973), Cubitt (1973), Boissevain (1973), and Niemeijer (1973).

For Barnes (1969:58-59) the notion of density becomes relevant because:

'.... for any' ... (individual) ... 'some of his contacts are adjacent to one another.'

Density, therefore, refers to:

'... the extent to which everyone in a set of ego's contacts knows everyone else.'

(Mitchell 1969:15)

Bott (1957) adopts a similar position when she refers to "connectedness" as the extent to which the contacts of a family know and meet one another independent of the family. Where many such relations exist she describes the network as close-knit, conversely, where few such links exist, the network is described as loose-knit. This

emphasis on the linkage between the links is common to all definitions as is well illustrated by the following examples: Reader (1964:22) defines density (he calls it connectedness) as follows:

'... lines of communication between those whom Ego knows and who know him, and know one another.'

Boissevain (1973:138) refers to density as:

'... the extent to which members of a person's primary zone are in touch with each other independently of him.'

The only significant difference between the various operational definitions of density relates to whether or not ego and/or his links to his (first-order) contacts, should be included for purposes of calculating the density of a particular network. Thus when Barnes (1969:63) defines density as:

'... the density of' ... (a) ... 'zone' ... (is) ... 'the proportion of the theoretically possible direct links that exist in fact,'

he obviously includes ego and ego's direct links in his measure of density. Boissevain (1973:138), on the other hand, refers to density as a measure of:

'... the *potential* communication between members of'... (a) ... 'network, not the *actual* flow of information (or exchange content). The density of each network was calculated' ... (with reference to) ... 'the actual number of links excluding those with ego,...'

Kapferer's position is somewhat ambiguous in that he has used different measures of density sometimes including ego and his

links, sometimes excluding ego and his first-order links. (Compare Kapferer 1969 and 1973.)

Assuming that consensus can be reached on the position of ego and his direct links, the measurement of density becomes a rather straightforward operation. By defining density as "the extent to which links which could possibly exist among persons do in fact exist" Barnes (1969:63-64) proposes that we use the following formula:

$$\frac{200 a}{n(n-1)} \quad (\text{Formula 2})$$

In the formula:

a = the actual number of links

n = the total number of people in the network including ego

Kapferer (1969:226) argues that network (he uses the term "reticulum") density is found:

'.... by dividing the actual number of linkages between the individuals in a reticulum by the possible number of interlinkages.'

To do this he proposes the following formula:

$$100 \times \left(\frac{Na}{N(N-1)/2} \right) \quad (\text{Formula 3})$$

In this formula:

Na = the number of actual links

N = total number of persons in the network

Boissevain (1973:138) calculated the density of each network on the basis of the formula:

$$200 \text{ Na}/n(n-1) \quad (\text{Formula 4})$$

Na = actual number of links excluding those with ego

n = total number of persons including ego

Niemeijer (1973:46) who adopts Barnes' definition of density suggests the formula:¹⁶⁾

$$D = \frac{100 \times \text{Na}}{\frac{1}{2}N \times (N-1)}\% \quad (\text{Formula 5})$$

Here:

D = density

Na = the number of actual relations

N = total number of persons in the network

$\frac{1}{2}N \times (N-1)$ = the number of theoretically possible relations

All four formulas give the same measure assuming that we either include or exclude ego and/or his direct links consistently. This can be illustrated by the following hypothetical network where we consistently include ego and his direct links.

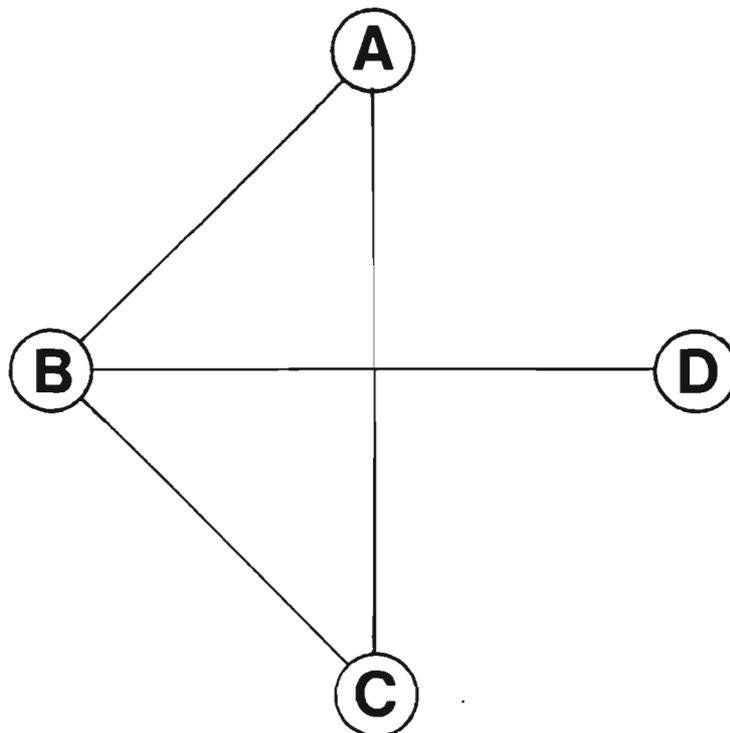


Diagram 9: Hypothetical Network D

$$\begin{aligned} & \frac{200 a}{n(n-1)} \\ = & \frac{200 \times 4}{4(3)} \\ = & \frac{800}{12} = \underline{66.6\%} \quad (\text{Formula 2}) \end{aligned}$$

$$\begin{aligned} & 100 \times \left(\frac{Na}{N(N-1)/2} \right) \\ = & 100 \times \frac{4}{4(3)/2} \\ = & 100 \times \frac{4}{6} \\ = & \frac{400}{6} = \underline{66.6\%} \quad (\text{Formula 3}) \end{aligned}$$

$$\begin{aligned} & \frac{200 Na}{n(n-1)} \\ = & \frac{200 \times 4}{12} \\ = & \frac{800}{12} = \underline{66.6\%} \quad (\text{Formula 4}) \end{aligned}$$

$$\begin{aligned} D &= \frac{100 \times Na}{\frac{1}{2}N \times (N-1)}\% \\ &= \frac{100 \times 4}{\frac{1}{2}(4 \times 3)} \\ &= \frac{400}{6} = \underline{66.6\%} \quad (\text{Formula 5}) \end{aligned}$$

The importance of decisions to include or exclude ego's direct links should, however, not be minimized. The network density "score" may vary tremendously depending on whether or not ego's direct links are taken into account. The following two hypothetical networks will illustrate the point.

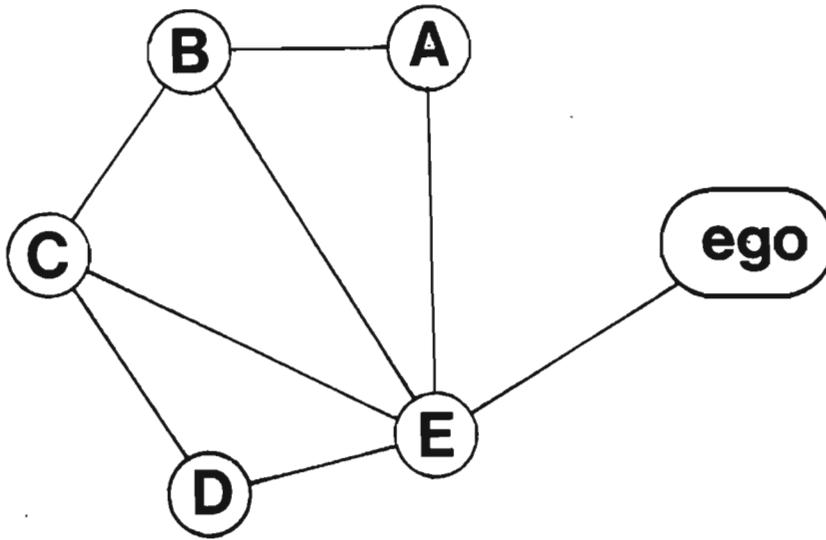


Diagram 10: Hypothetical Network E

In network E using Barnes' formula and excluding ego's direct links, we arrive at the following measure of density:

$$\begin{aligned}
 & \frac{200 a}{n(n-1)} \\
 = & \frac{200(7)}{6(5)} \\
 = & \frac{1400}{30} \\
 = & \underline{\underline{46.6}}
 \end{aligned}$$

Including ego's direct links we get:

$$\begin{aligned}
 & \frac{200 a}{n(n-1)} \\
 = & \frac{200(8)}{6(5)} \\
 = & \frac{1600}{30} \\
 = & \underline{\underline{53.3}}
 \end{aligned}$$

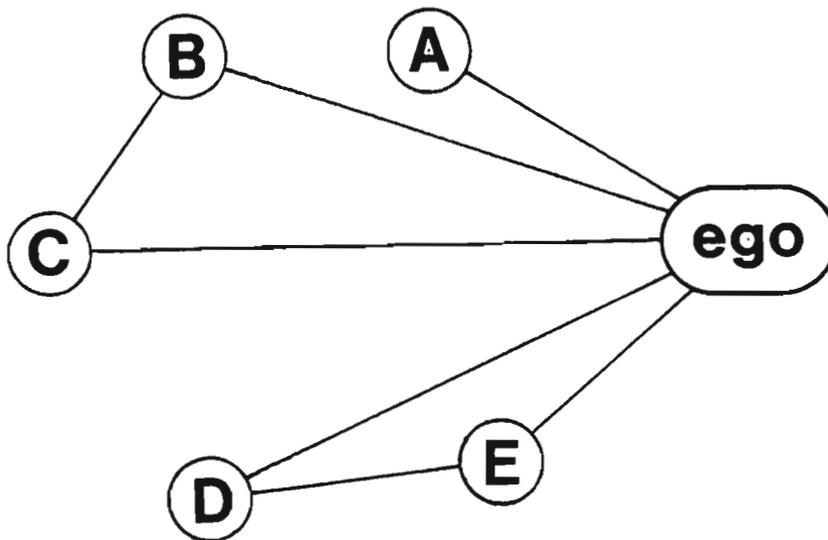


Diagram 11: Hypothetical Network F

Following the same procedure, we first exclude ego's direct links and thus arrive at the following density "score":

$$\begin{aligned}
 & \frac{200 a}{n(n-1)} \\
 &= \frac{200(2)}{6(5)} \\
 &= \frac{400}{30} \\
 &= \underline{\underline{13.3}}
 \end{aligned}$$

Next, including ego's direct links the picture changes dramatically.

$$\begin{aligned}
 & \frac{200a}{n(n-1)} \\
 &= \frac{200(7)}{6(5)} \\
 &= \frac{1400}{30} \\
 &= \underline{\underline{46.6}}
 \end{aligned}$$

Whereas the difference in network E above is rather small the

difference in the second example is far greater and indicative of important structural differences. It, therefore, seems as if the two different practices (including or excluding ego's direct links) result in the measurement of two different aspects of the notion of density. On the one hand we focus on the extent to which ego's contacts know each other, on the other, we focus on the proportion of actual links to the theoretically possible number of links in the network including ego's direct links. There is in addition the problem of the significance, if any, of the difference between the two measures. Thus in network E above this difference equals 6.7 whereas in network F it equals 33.3. Perhaps this difference is an indication of ego's centrality and, therefore, importance to the network. However, at this stage we are not aware of any terms that enable us to distinguish between these three aspects of network density. It is therefore, essential to specify that aspect of network density which is of concern to the investigator at any one time.

Niemeijer's (1973:49) distinction between the "degree of a person" and the "density of a person" in relation to the network of which he is a member is another attempt to come to terms with structural differences in networks resulting from the position, central or otherwise, occupied by ego in the network under study. For him the "degree of a person" is:

'... the number of relations he has within the network, i.e. the size of his number of his "first-order star".'

(Niemeijer 1973:49)

We would then compare this "score" with that of the degree of the

network. The latter is defined as:

'... the mean number of relations network members have with other members.'

(Niemeijer 1973:47)

The "density of a person" is:

'... the percentage of all relationships he could have theoretically within the network that are in fact actualized.'

(Niemeijer 1973:49)

To obtain this measure we use the following formula:

$$D_p = \frac{dp}{N} \times 100 \quad (\text{Formula 6})$$

Where

D_p = density of person

dp = degree of person

N = number of members in the network

Once again, this measure when compared with the density for the network as a whole, should tell us something about the centrality of the person's position within the network being studied.

Although the relationship between these ideas of Niemeijer and Kapferer's notion of "criticality" (see Kapferer 1969:222) seems to be related, the link between the two is still unexplored.

For Kapferer (1969:222) "criticality" refers to:

'... the degree to which a person or number of persons within an individual reticulum are crucial to it.'

For him there are two major aspects of criticality, viz.:

- (a) '... the extent to which a person (or persons) is a major point connecting

'the other people in the reticulum to each other, thus providing an additional bond between them, other than their common relationship to Ego,

and

- (b) 'the degree to which a person (or persons) connects Ego to other people in the situation to whom in the terms of this paper he is either not directly connected or who, if zones other than the primary zone are considered, occupy a point on a path which is Ego's only route of access to certain individuals in the situation.'

In Kapferer's case the emphasis is obviously on the importance of people other than ego in the network, whereas Niemeijer focuses on the importance of ego for the network. They do have in common, however, a focus on the role of the individual in the structure of the network. In addition they both highlight the relationship between individual and the density of the network as a whole.

Recently some writers have commented on the relationship between network size and density. Cubitt (1973:76) for example, writes:

'One problem with calculating measures of network density is that the potential number of interconnecting linkages increases at a much faster rate than the number of people in the network. The number of network members is therefore an important factor to take into consideration.'

According to Niemeijer (1973:46-49) the same density measure will have different meanings depending on whether it relates to a small,

or a large network. In other words, different sized networks may have the same density. This relationship between size and density complicates the interpretation of measures of density. Where two networks have the same density, but differ in the number of people in the network, it is obvious that people have more relations with one another in the larger of the two. Starting with Barnes' definition of density, Niemeijer adopts the formula:¹⁷⁾

$$D = \frac{100 \times Na}{\frac{1}{2}N \times (N-1)}\% \quad (\text{Formula 5})$$

With this he suggests we rewrite the definition of density to be a function of two factors, viz., "size" and "degree". "Size" refers to the number of people included in the network, while "degree" refers to:

'... the mean number of relations network members have with other members.'

(Niemeijer 1973:47)

To calculate the "degree" of a network we use the following formula:

$$d = \frac{2 \times Na}{N}$$

In this formula:

d = degree of network

Na = actual number of relations

N = network size

According to Niemeijer (1973:48):

'The degree of a network tells us to what extent the persons are on average connected to the network in question. If

'the degree of a network equals three, one knows that the members have an average of three relations with other network members.'

Using this measure of degree Niemeijer rewrites the original formula of density to read as follows:

$$D = \frac{100 \times d}{N-1} \quad (\text{Formula 8})$$

Here:

D = density

d = degree

N = number of people in the network

Thus:

'... the density of a network varies directly with degree and inversely with size. If a network is large and has the same density as another but smaller network, then the degree will be greater.'

(Niemeijer 1973:48)

Finally, with reference to variables influencing the density of networks, Turner (quoted by Cubitt (1973:71)) suggests that there is a close relationship between geographical mobility and density. When people live in one area or place all or most of their lives, it is likely that their networks will be dense. Conversely people who are geographically highly mobile are likely to know people in many parts of the country, consequently their networks will, most likely, be "sparse". However this variable, and others in the same category, can only be useful in explaining the origin and structure of a given concrete network. As such it has very little influence on the relationship between networks and human behaviour.

2.4.1.4. Range

Of all the structural characteristics identified by Mitchell "range" has received, to date, the least attention in the literature. In addition the relationship between range and other structural aspects of networks has not been explored.

Wheeldon (1969:133) distinguishes between small-, middle-, and large-range networks. According to him range is affected by two variables, viz.:

- (1) '.... the absolute numbers of people with whom ego is observed to have a personal relationship,....'

and

- (2) '.... the numbers of people in' ... (ego's) 'network who do not belong to broadly the same socio-economic group as himself.'

These two variables viz., the number of direct (first-order) contacts of ego, and the socio-economic position of (all) people in ego's network, enables Wheeldon to draw this distinction between networks in terms of range. Niemeijer's (1973:49) notion of the degree of a person which he defines as:

'... the number of relations' ... (ego) ... 'has within the network, i.e. the size of his number of his "first-order star".'

is obviously the same as Wheeldon's first aspect of range. With reference to first-order contacts Mitchell is of the opinion that there is a limit to the number of people with whom ego can be in direct and regular contact. For him the upper limit is probably 30 contacts.

Wheeldon's second aspect, socio-economic position, has received very little attention. If we add to this aspect other important differences which may exist between ego and his first-order contacts, we can refer to such a difference or combination of differences as the heterogeneity of the network.¹⁸⁾ It is therefore, suggested that the notion of range should include the idea of the hetero- or homogeneity of the network. In addition to socio-economic status, cultural, language, religious and/or political differences or similarities between ego and his first-order contacts may influence ego's behaviour. The possibility of cultural accommodation and assimilation, for example, may very well depend upon the hetero- or homogeneity of the networks of actors in a situation of cultural contact.

A network with a large-range is, therefore, one where ego has many first-order or direct contacts and where his network is heterogeneous. Conversely a small-range implies very few, perhaps no, first-order contacts plus a homogeneous network.

Related to "range" is Kapferer's (1969 and 1973) notion of "span". Originally he defined span as:

'.... the number of links out of the total viable links operating between actors observed in' ... (the situation) ... 'captured by Ego as a result of including specific people within his direct set of relationships.'

(Kapferer 1969:224)

To measure span he suggests using the following formula:

$$\frac{100 (E+L)}{S} \quad (\text{Formula 9})$$

E = number of direct links between ego and other actors in the network

L = total number of links between each of the actors to whom ego is linked

S = total number of links between all actors in the situation

To illustrate the application of the formula let us assume we have the following network:

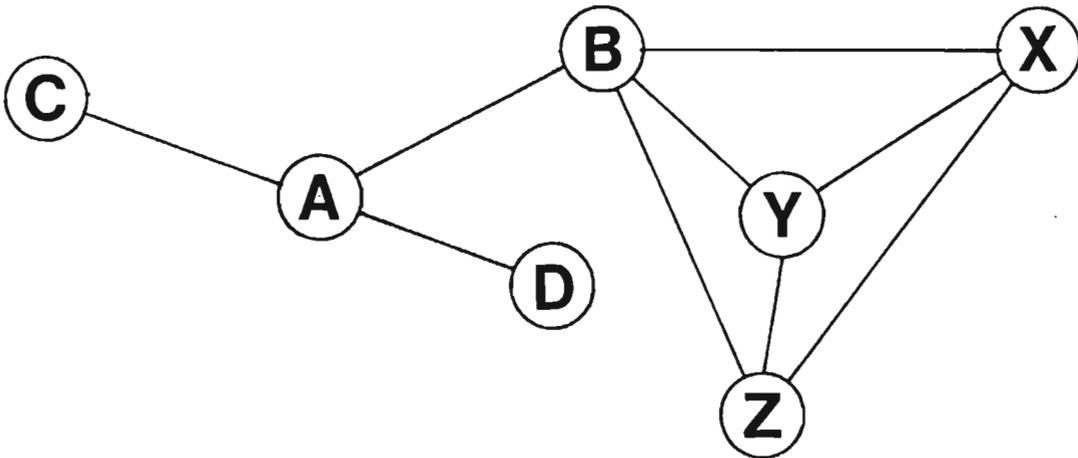


Diagram 12: Hypothetical Network G

Should we focus on A the span of his network is as follows:

$$\begin{aligned} & \frac{100 (E+L)}{S} \\ &= \frac{100 (3+0)}{9} \\ &= \frac{300}{9} \\ &= \underline{\underline{33.3}} \end{aligned}$$

Alternatively the span of B's network is as follows:

$$\begin{aligned}
 & \frac{100 (E+L)}{S} \\
 = & \frac{100 (4+3)}{9} \\
 = & \frac{700}{9} \\
 = & \underline{\underline{77.8}}
 \end{aligned}$$

The definition of span and the measurement of span developed by Kapferer was made possible by the bounded nature of the situation to which it was first applied. It is not possible to use this formula in an unbounded situation because of the lack of information. Realizing this Kapferer (1973:96) later redefined span as:

'... the number of individuals with whom ego has a relationship.'

This much simplified notion of span is much closer to the notion of range as used by Wheeldon. In using it Kapferer now refers to high or low span.

2.4.2. Interactional Characteristics

2.4.2.1. Content of Links

For Mitchell (1969:20) the most important interactional aspect of the links in a person's network is:

'.... that which concerns the meanings which the persons in the network attribute to their relationships.'

The meaning of a relationship may be referred to as the "content" of the link/s in a person's network. So important is this concept that Harries-Jones (1969:302) argues:

'Any "link" or set of "links" between people is defined in virtue of the content that either the actor or observer gives to the "link".'

Thus we find that relationships differ in their content.

Unfortunately the notion of content involves some of the most difficult problems. It is also, according to Mitchell (1973:292) the least developed of all the characteristics. The fact that "content" has been used in slightly different ways contributes to the confusion. Epstein (1969:112), for example, writes:

'Implicit in much of this conversation are the norms, values and attitudes, of general or special application, recognized in the society. An important part of such conversation is made up of gossip, ... Viewed then in terms of the content of interaction the network may also be seen as a series of links in a chain of gossip.'

In this instance, says Mitchell (1969:22):

'.... content refers to the content of the *flow of communication* through the network.'

Kapferer (1969:211-215) who also discusses the "interactional bonds" between an anchor person and his contacts, identifies "exchange content" as one of the three major properties of such relationships. By exchange content he (Kapferer (1969:212)) means:

'.... the overt elements of the transactions between individuals in a situation which constitutes their interaction.'

As examples of exchange content Kapferer identifies: conversation; joking behaviour; job assistance; personal service; and, cash assistance.

Mitchell (1969:20) refers to "normative content" when he uses the concept of content. The reference is, therefore, to the "normative context" in which interaction takes place. Here he has in mind kinship, shared religious beliefs, economic obligations, etc. (See Mitchell (1969:22)).

As mentioned earlier¹⁹⁾ one way of limiting the network so that it becomes more manageable is to look at personal networks in terms of restricted contents. Barnes (1954:43), for example, says that:

'.... I want to consider, roughly speaking, that part of the total network that is left behind when we remove the groupings and chains of interaction which belong strictly to the territorial and industrial systems.'

This restricts his analysis to relationships based on kinship, friendship and neighbourliness. Bott (1957) also refers to friends, relatives and neighbours suggesting that she adopts a similar definition of content.

Any discussion of content would be incomplete without reference to the possible concurrence of several contents in one network link. Where a given link contains only one focus of interaction, we refer to it as "uniplex" or "single-stranded" or "simplex". Those links containing more than one content are called "multiplex", or "multi-stranded" or "many-stranded". On the notion of uni- and multiplexity there seems to be no disagreement. Multiplexity is described by Wheeldon (1969:132) as follows:

'..... if A sees B at work, if they belong to the same football club and are both

'members of the ratepayer's association, ...
I describe their relationship as having at
least three strands, ...'

Similarly, Kapferer (1969:211-212), for whom the "multiplexity of the exchange content" constitutes one of the three important properties of interactional bonds, defines multiplexity as:

'.... the number of exchange contents
which exists in a relationship.
A relationship becomes multiplex when
there is more than one exchange content
within it,

(Kapferer 1969:213)

Having defined multiplexity Kapferer (1969:223-224) introduces the notion of the degree of multiplexity, which he divides into two parts. The first is concerned only with ego's direct links which he refers to as "star-multiplexity". The second relates to the links connecting all people in the network excluding ego's own direct links to them which he calls "zone-multiplexity". To obtain the degree of multiplexity Kapferer (1969:226) suggests dividing the number of multiplex relations by the total number of "all relevant" relationships, expressing the result as a percentage. Similarly, star-multiplexity is obtained by dividing the number of multiplex direct relationships which ego has by the total number of all his direct relationships. Zone-multiplexity is obtained by dividing the number of multiplex relations between members of the network, excluding ego, by all the relationships linking them.

The importance of multiplexity, for Kapferer (1969:213), stems from the fact that it provides a measure to determine whether ego is strongly or weakly tied to the members of his network. Thus

he argues that relationships which are multiplex are almost always stronger than those which are simplex or uniplex.²⁰⁾

Considering the relationship between multiplexity and other concepts, the following links are identified by various writers. Thoden van Velsen (1973:227) argues that:

'Multiple relations will grow and develop between persons within the same compartment rather than with persons outside these compartments.'

With reference to the relationship between multiplexity, span and density, Kapferer (1969:228) feels that a high "score" of multiplexity tends to occur in association with a high score for span and/or density. However, a high score for density and span does not always imply multiplexity. In addition, Kapferer (1969:228) suggests that star-multiplexity has the most relevance for span while zone-multiplexity has the most relevance for density.

Finally, Mitchell (1969:23) argues that the notion of multiplexity relates to Frankenberg's (1966) idea of "social redundancy". The idea behind redundancy is that in "multi-channel routes" alternative links are available should any one channel fail. Consequently, Mitchell (1969:23) feels that:

'A multi-stranded relationship is analogous to a multi-channel communication route insofar as effect on behaviour is concerned, since people in a multi-stranded relationship interact with one another in many different contexts and are therefore less likely to be able to withdraw completely from contact with one another as people in a single-stranded relationship are able to do.'

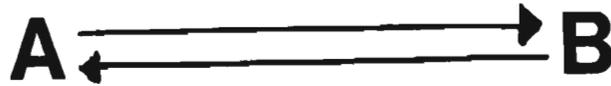
2.4.2.2. Directedness

Unlike the concepts discussed so far, the notion of directedness is much less complex and less open to different interpretations. It refers to the question of whether a given relationship is reciprocal or whether it should be considered as oriented from one person to another.

When relationships are reciprocal as is the case with friendship, kinship and neighbourliness (see Barnes (1954); Bott (1957), etc.) directedness is not very important. In other instances there is a close relationship between the content of a relationship and the direction of the relationship. This is, for example, the case in an employer-employee relationship. Furthermore, the influence of one actor on another will most certainly differ according to the direction of the relationship. It therefore seems important to distinguish between reciprocal relations and "focused" relationships. The former can be sub-divided into "symmetrical" and "non-symmetrical" relationships.²¹⁾ Reciprocal relationships really involve two relationships, (that between A and B *and* B and A) of like content.²²⁾ Bearing this in mind symmetrical relations refer to a situation where the relationship between A and B; and B and A is identical in all respects, e.g., intensity. Where a relationship is "non-symmetric" the relationship between A and B will not be the same as the relationship between B and A.

Somewhat more complicated is the relationship between multiplexity and directedness. Assuming a multiplex relationship

between A and B it is obvious that some of the strands may be oriented to A, while others may be oriented to B. Diagrammatically, this may be represented as follows:



Alternatively, all the links may be directed at either A or B.



Where a relationship is both multiplex and reciprocal it is obvious that directionality is less important than in the other two cases described above.

2.4.2.3. Durability

According to Barnes (1972:17) durability refers to:

'.... the persistence of relations through time.'

Here the emphasis tends to be on the persistence or stability of given relationships. To see networks as something static would, therefore, be misleading. The network is always dynamic. Thus new relations are formed, old ones discarded and others modified. Some relations are relatively short lived, as is often the case with action-set links. Because these links are activated by ego for the sole purpose of achieving a specified goal, they often disappear once ego achieves his ends. Other relations are "permanent" in

that they only disappear when ego, or his contact, dies. This would be the case, for example, with relations based on kinship. The permanence of such relations does not imply, however, that they are always manifest relationships. Such relations may be latent or dormant for varying periods in that they do not influence ego's behaviour.

There is obviously some relationship between the durability of a relationship and the multiplexity of a relationship. It is most likely that a multiplex relationship will also be a durable relationship. This idea is also expressed by Mitchell (1969:23) in the following statement:

..... (when people) ... 'interact with one another in many different contexts' (they are) 'less likely to be able to withdraw completely from contact with one another

A relationship between density and durability is also not improbable. Should a relationship exist one would expect it to be a positive relationship. In other words, the higher the network density the more durable the links within the network.

Other characteristics of links and networks that may relate positively to durability, include reachability, directedness (reciprocal relations), frequency of contact and the intensity of links.

2.4.2.4. Intensity

By "intensity" Mitchell (1969:27) means:

'..... the degree to which individuals are prepared to honour obligations, or feel free to exercise the rights implied in their link to some other person.'

Barnes (1972:17) adopts an almost identical definition of intensity.

For him:

'..... intensity indicates the extent to which an individual is ready to respond to appeals for support and is constrained in his choice of actions because of his relation to someone else....'

The notion of the "strength of a relation", especially as used by Kapferer (1969:213) when he refers to "strength" as the ability of an actor to influence other people in the network, is also closely related to the idea of the intensity of a link.

Considering the relationship between intensity and multiplexity, Mitchell (1969:29) points to the fact that not all intense relations are multiplex relations. Whereas some relations are intense because they are multiplex, others are intense because of "the moral values they are invested with". (Mitchell (1969:29))

Finally with regard to the measurement of intensity we would have to be satisfied, for the time being, with either the actor's²³⁾ or observer's own assessment of the intensity of a given relationship. At best this would mean a distinction between low, medium, and high intensity.

2.4.2.5. Frequency

Although the frequency of contact is a characteristic

of all relationships it is doubtful whether it is relevant for network analysis. Mitchell (1969:29) suggests that its relevance can only be marginal. An aspect or dimension of the frequency of contact is the regularity of such contact. Here again, however, the relevance of the regularity of contact seems marginal. For the time being the usefulness of these concepts seems to be restricted to a descriptive classification of relations as either:

- (a) frequent and regular;
- (b) frequent and irregular;
- (c) infrequent and regular; or
- (d) infrequent and irregular.

Because both the frequency and regularity of contact are easily quantifiable, operational definitions of frequent-infrequent, and regular-irregular, should present no serious problems. The relevance of this classification for networks must, however, remain undemonstrated.

3. SOME CONCLUDING REMARKS

The above, rather brief, discussion of the origin and nature of the network approach represents an attempt to systematize, define, clarify and explain those concepts most often used by network researchers. In addition, the process of clarification and explanation included an attempt to indicate, where possible, the links between the concepts. It is the establishment of such links which is seen, theoretically speaking, as the most urgent and pressing need of the network approach. Without a system of interrelated and interdependent concepts, i.e., a conceptual frame of reference, the approach will never be regarded as more than a mode of analysis.

Finally, there has been no attempt to summarise either the "methods" or findings of network researchers. If and when referred to it was done in order to clarify a given concept.

NOTES

1. The term network was first mentioned by Barnes in 1953 in a short paper which was read at a meeting of the Association of Social Anthropologists at Oxford on 3rd October 1953. According to him he got his idea mainly from a book by Fortes *The Web of Kinship* (1949). See Barnes (1969:52).
2. A more detailed and systematic discussion of methods and methodological problems is included in the chapter on Research Design, i.e. Chapter Three.
3. Freeman's (1979:217) definition of a graph is almost identical to this definition of a network.
4. The above discussion relates to the distinction between "total" and "partial" networks discussed later on in this chapter.
5. For a useful, although brief, discussion of graph theory concepts see Freeman (1979).
6. A more usual notation would be CL_{12} rather than CL^{12} which looks like CL to the 12th power.
7. Perhaps by definition it should be all people in the world.
8. In fact, there are no non-members.
9. Discussed a little later in this chapter. See section 2.2.2.
10. Limited in terms of content, i.e., kinship, religion, neighbourliness, etc.
11. A more detailed discussion of the problems involved is included in the chapter on Research Design. See Chapter Three.
12. The meaning and importance of density will be discussed in some detail later in this chapter.
13. Some errors in the original diagrams were corrected.
14. Taken from Mitchell (1969:16).
15. In the presentation an X indicates that a point at the head of a column cannot be reached from a point at the head of a row.
16. This formula is later modified to take into account the relationship between density and size of a network. This will be discussed shortly.
17. Discussed in an earlier part of this section.

18. Jacobson (1970) also refers to the heterogeneity of the "elite network" in the town of Mbale, Uganda. For him, however, heterogeneity refers exclusively to the ethnic status of the members of a network.
19. See section on total and partial networks.
20. "Strength" refers to the actor's ability to "exert pull over" and influence other people to whom he is multiplexly tied. (See Kapferer (1969:213)).
21. Compare Barnes (1972:6) and also Thoden van Velzen (1973:243).
22. The reference to "like content" is important to distinguish this kind of relationship from one which is multiplex.
23. In using the actor's definition of the situation the network approach is linked in one small respect, to interpretative sociology.

CHAPTER THREERESEARCH DESIGN1. CONCEPTUAL FRAMEWORK

The decision to use the network approach in the study of reactions to culture contact, followed by a discussion of the origin and nature of the network approach itself, provides us with some insight into the theoretical and conceptual orientation of the researcher. However, such a discussion is never sufficiently precise so that it can serve as a statement of the conceptual framework to be used in empirical research. It is therefore necessary to identify and define the various concepts to be used in this study.

A *social network* is defined as a set of relationships (lines or links) between actors (or points or "knots" or persons or individuals). Ego's behaviour is therefore analysed in terms of the links between him and his first-order contacts and the links if any, these contacts have among themselves and with others. *First-order* refers to direct contact between ego and at least one other person.

Because of limited resources, particularly time and money, most researchers must restrict the number of actors and order of relationships as well as the kinds of links to be included in any concrete analysis of a given ego's network. All restrictions on the number

of persons to be included in the analysis plus restrictions on the order of relationships results in a *segmental network*. Conversely, limiting the scope of the investigation in terms of the content of links the result is a *partial network*. In the case of segmental networks morphological or structural restrictions¹⁾ are imposed affecting:

'..... the relationships or patterning of the links in the network.....'

(Mitchell 1969:12)

Partial networks, on the other hand, are seen as resulting from interactional restrictions,²⁾ that is, restrictions in terms of content, affecting the nature of the links themselves. It is obvious that such a partial or segmental or partial-segmental network constitutes a sub-set of a much larger *total network*. As such it is an abstraction either of ego or the investigator or, most likely, both. The larger total network includes all links with no restrictions placed on either order or content. This makes it a highly abstract theoretical concept whose only empirical point of reference can be the world. In addition it is both finite in the sense that you can, at least theoretically, count all the people in the world and unbounded insofar as there are no non-members.

Given the assumed relationship between ego's behaviour and his social network, it becomes absolutely critical to distinguish between different social networks in order to explain differences in the behaviour of different egos. Alternatively, similarities in behaviour can be attributed to similar social networks. All of this presupposes the existence of a conceptual framework precise enough to allow

researchers to distinguish between different social networks. Mitchell's (1969) work in providing such a conceptual framework is an important landmark in the development of the network approach. In this study we follow him closely in distinguishing between five morphological and five interactional characteristics of social networks.

The *morphological* characteristics refer to:

'..... the patterning of the links
in the network with respect to one another.'

(Mitchell 1969:12)

Anchorage, density, reachability, homo-/heterogeneity and *size* are the five structural characteristics used to distinguish between different social networks. This study regards the network as having a starting point or reference point or point of orientation. As such it is *anchored* on this starting point. Moreover, this starting point is, for purposes of this investigation, always a single individual. This makes the network *egocentric* or *personal*. It also makes the network either the creation of ego himself insofar as he establishes interpersonal contacts or the construction of the investigator or both.³⁾ Like Mitchell (1969:15) we define *density* as:

'..... the extent to which everyone in a
set of ego's contacts knows everyone
else.'

Thus the emphasis is on the linkage between the links. *Reachability* refers to the proportion of people that can be reached in a specified number of steps within a given concrete social network. *Homo-/heterogeneity* refer to the number of relations of like content

existing between ego and his contacts while *size* refers to the number of direct or first-order contacts of ego.

Turning next to the interactional characteristics we once again follow Mitchell's example (1969) in distinguishing between five such characteristics, viz., *content*, *directedness*, *durability*, *intensity*, and *frequency* of interaction. Here the focus is on the nature of the relationships themselves. *Content* refers to the meaning that the relationship has for ego. Examples of content include: friendship; kinship; supporting the same political party; going to the same church; neighbourliness; participating in the same recreational activities, and so on. Those links between persons containing more than one content are called *multiplex* or *multi-stranded* as opposed to *uniplex* or *single-stranded* links containing only one focus of interaction. *Directionality* refers to the question of whether a given relationship is reciprocal, i.e. friendship, or whether it should be considered as oriented from one person to another. Relationships of like content which are also reciprocal really involve two separate relationships; between A and B, and B and A. As such it may be either *symmetrical* or *non-symmetrical*. If symmetrical the relationship between A and B, and B and A is in all respects identical. Should the relationship between A and B be different from the relationship between B and A, we have a non-symmetric reciprocal relationship. For Barnes (1972: 17), and also for us, *durability* refers to:

'.... the persistence of relations through time.'

We also accept Mitchell's (1969:27) definition of *intensity* where intensity refers to:

'.... the degree to which individuals are prepared to honour obligations, or feel free to exercise the rights implied in their link to some other person.'

Finally with reference to the interactional characteristics of social networks we distinguish the *frequency* of contacts. This concept involves at least two dimensions, viz. the *frequency* of contact and the *regularity* of such contact. Taken together these two variables enable us to develop a descriptive typology of contact. Thus we can classify contact as either: frequent and regular; frequent but irregular; infrequent yet regular; and, infrequent and irregular.

Finally, we conclude our discussion of the conceptual framework by considering the notions *action-sets* and *communication-sets*. When ego mobilizes or activates some of the links in his personal network for a limited period of time in order to achieve a desired goal or end, and there is, furthermore, a transaction between the activator and the activated then we have an *action-set*. It must be pointed out that the transaction is not always explicit and visible to an outsider, nor is it always a *materialistic transaction* in that goods change hands. Often support for one person involves a tacit understanding that, if necessary, that person will support you at some future date. Such obligations are often *taken for granted* and thus part of an *et cetera* clause. (See Garfinkel (1967)). Having mobilized such a sub-set of his personal network ego may in future, for a number of reasons, find it easier to

mobilize the same links in order to achieve new goals. Such repeated mobilization of the same network links can result in the formation of a *quasi-group* (Mayer (1966:115)). The latter may take one of two forms: either it is a unit of conflict in which case we use the concept *faction* (Harries-Jones (1969:302)), or if not a unit of conflict we use the concept *clique*.

As an analytical tool the notion of a *communication-set* tends to be much less useful. Here the emphasis is on the flow of information or knowledge through the network. Insofar as only certain, never all, links are used for the transmission of given information, in any one concrete case those links, taken together, constitute a communication-set. However, it could be argued that the entire network is used to a greater or lesser extent for the transmission of information, and as such the social network is in itself a communication-set. Also, in the case of action-sets, success in the achievement of desired goals will surely depend in no small way on the successful transmission of relevant information. Thus once again it could be argued that the action-sets share some communication-set characteristics. All of this, however, does not detract from the usefulness of the concept *commune* which Harary, Norman and Cartwright (see Harries-Jones (1969:302-303)) see as a *strong set* in a communication-set. For them, and for us, it is:

'..... a maximal collection of people who can engage one another in two-way communication, so that if a message was transmitted to one member of this "commune" all other members would be bound to receive it.'

(Harries-Jones 1969:302-303)

The above discussion is a very brief summary statement of the conceptual framework to be used in this investigation. Reading it in conjunction with the chapter on the origin and development of the network approach gives a more detailed picture of the theoretical perspective of the investigator.

2. METHODOLOGY

2.1. Some General Methodological Issues

Broadly speaking methodological problems or issues can be classified into one of three categories. Thus we distinguish between Type 1, Type 2 and Type 3 problems.

Problems of Type 1 refer to decisions concerning the restrictions, morphological and/or interactional, that the investigator imposes on any concrete network. That restrictions must inevitably influence the quality of the investigation cannot be denied. However it is equally true that:

'..... some limit must be put on the number of links to be taken as definitive for any specific network; otherwise it would become co-extensive with the total network.'

(Mitchell 1969:40)

Realizing that limitations are inevitable the problem of what restrictions to impose presents itself to the researcher. Mitchell (1969:13) argues that how far the links of a network must be traced:

'..... depends entirely upon the field-worker's judgement of what links are significant in explaining the behaviour of the people with whom he is concerned.'

He suggests (Mitchell (1969:14)) that it will seldom be necessary to

go beyond the second-order zone in order to determine the influence of the network on the behaviour of individuals. However, even this may be over-ambitious if one considers Boissevain's experience. He writes:

'By including the total first-order zone in the analysis the researcher is faced with the problem of gathering the relevant data and processing it. This in my experience is prohibitively time consuming and likely to inundate the researcher with data to the point of immobility.'

(Boissevain 1973:73)

What criteria to use for selecting structural restrictions remain problematical. Imposing interactional limitations is often considered no less problematical. You may, for example, restrict your analysis to friends or neighbours. However, the difficulty here is:

'..... that people's conceptions of these terms differ so much. One or two of the older men in my research insisted that they had no friends at all, while a trade union secretary considered all the members of his union friends.' 'Similarly some informants considered as neighbours only their two immediate neighbours while others referred to those living in a whole district of Edinburgh as neighbours.'

(Cubitt 1973:74)

We cannot deny that people's conceptions of friendship, neighbours, etc. are different, but the importance of this fact is easily over-estimated. It would be much more unwise to impose a uniform yet "foreign" definition on informants. This may lead to a much greater distortion of the facts. It is suggested that, in spite of obvious drawbacks, we use the actors' definition of the situation. At least this way we cannot be accused of creating an artificial situation. Ultimately only those relationships created and/or recognized by ego

can influence his behaviour. Finally, with reference to restrictions imposed by researchers, it is noteworthy that investigators often restrict their studies to an analysis of uniplex links amongst a restricted, finite number of persons of a given network (see for example: Barnes (1954), Bott (1957), P.Mayer (1961), Epstein (1969), Pauw (1963), and A. Mayer (1966)). In doing this they come close to the idea of a digraph in graph theory.

Type 2 problems concern data collection, especially problems concerning research procedures, data collection techniques, recording of network data and who to regard as the anchorpoint. In spite of Mitchell's (1969:4) claim that participant observation as a research procedure predominates in network studies there is also much evidence of the use of at least quasi-survey type procedures. The use of traditional survey techniques by many researchers is evidence in support of this statement. Many studies certainly do rely on participant observation (see for example: Cubitt (1973), Whitten (1970a) and Yengoyan (1970)), but an equally large number uses surveys and survey type techniques (see for example: Coombs (1973), Tolsdorf (1976), Chatterjee (1976), Bott (1957), Cubitt (1973), Whitten (1970a), Yengoyan (1970), Nelson (1966), Aldous and Straus (1966) and Erbe (1977)). Even the use of samples has found a place in network analysis (see for example: Petrowsky (1976), Southall (1961), Nelson (1966), and Aldous and Straus (1966)). Perhaps the days of the *pure* research design is something of the past. This is no reason for despair, for on the methodological horizon there looms the exciting possibility, and challenge, of combining two or more "traditional" procedures into one, more adequate, research design.

As far as the actual gathering of data is concerned Mitchell (1974:296) argues that some involvement of the observer with the people he is studying is essential. For him (Mitchell (1969:31)) the most valid, reliable and adequate information is likely to be obtained through direct observation. This technique of data gathering is, however, not without its limitations. The influence of the observer on the observed is perhaps one of the more serious limitations, for it cannot be denied that the mere presence of a new member must inevitably change the pattern of relationships present in a given situation. Relevant here is the view of Whitten when he writes:

'....., marginal though he may be to the cultural orientations of a given people, and peripheral though he may be to their social, economic, and political systems, a competent ethnographer becomes central to a data-gathering, rumour-distributing network that usurps power from other systems. Because the anthropologist must learn as much as possible he is bound to make close friends and through them to work outward in ever-ramifying networks of interpersonal relationships.'

(Whitten 1970:398)

Furthermore, using direct observation as the only means of identifying the members of ego's network is in itself not always adequate. Here the problem lies in the fact that the observer perceives only those links which are used, mobilized or activated by ego, and his contacts, while he is observing them. Even then, links which are activated by means other than direct contact, i.e. by means of letters, telephonic conversation, cards, audio tapes, etc., may never come to the attention of the observer. This means that in addition to the conscious and

intended restrictions on the network and network analysis, there are also unintended restrictions on the social networks and the analysis of them, due to inadequate data gathering. The problem with these unintended restrictions lies in the fact that nothing is known about their scope, influence or importance for the network. In addition, because they are unknown to the researcher he has no control over them. That the problem of dormant links has been realized is evident in the work of Mitchell (1969:40) when he writes:

'A problem arises out of the fact that not all of the potential links that a person may have need be activated at any particular moment. The relationship an individual has with some person may be dormant or latent until it becomes the basis of some social action.'

The real dilemma facing the participant observer is nowhere better described than in the following extract from the work of Mitchell (1974:296):

'In a sense the potential participant observer wishing to make a network study is faced with the paradox that he is best placed to initiate the study after he has completed it.'

Turning next to the use of more traditional, survey type techniques and their relevance for network studies we first put forward the view of Mitchell (1969:28-29). He argues:

'Thus far the use of formal techniques of data collection, as for example by self-completed questionnaires such as used by sociometrists or even of such schedules completed by relatively skilled interviewers, has not been very successful precisely, I suspect, because the basic phenomenological problem involved in adequately distinguishing the content of the links in networks has remained unsolved.'

Leaving aside for the time being the problem of determining the content of a link we wish to point out that if the use of "formal techniques has not been very successful" then this fact has certainly not prevented researchers from using them (see for example: Coombs (1973), Tolson (1976), Chatterjee (1976), Bott (1957), Cubitt (1973), Whitten (1970), Yengoyan (1970), Nelson (1966), Aldous and Straus (1966)). Of all the "survey type" data gathering techniques used by researchers, the interview is perhaps the most popular one (used by: Coombs (1973), Tolson (1976), Chatterjee (1976), Bott (1957), Cubitt (1973), Whitten (1970), Yengoyan (1970), Nelson (1966), Aldous and Straus (1966), and others). According to Mitchell (1969:30):

'Using interviews has the disadvantage that the fieldworker becomes aware of the characteristics of the network only from the point of view of his respondent.'

To overcome this difficulty it is suggested, by Mitchell, that in spite of the enormity of the task the researcher must:

'..... interview every person that a respondent claims to be in his personal network.'

(Mitchell 1969:31)

In principle Bott (1957:61) agrees with Mitchell when she writes:

'If possible it would be advisable to interview several members of a network, following the links of interaction from one to another, instead of relying on what each couple say about their network.....'

Cubitt (1973:75) adopts a similar position as is evidenced in the following quotation:

'Ideally each member of the network should be contacted and asked if he knows the other members.'

In contrast to the views expressed by the above mentioned writers it could be argued that the researcher really only requires the respondent's point of view. Given the assumption: when ego *defines a situation as real it is real in its consequences* (see W.I. Thomas (1966)) the relationship between ego's network, whether real or imagined, and his concrete behaviour can be investigated. This view is obviously based on the assumption that something, here the network, can only influence behaviour if it is part of the actor's definition of the situation. In practice this means for example, that a perceived relationship, real or imagined, between contacts of ego is likely to affect his behaviour. Conversely, where ego sees no relationship between two of his contacts, even if it does exist, it is unlikely to have any bearing on his behaviour.⁴⁾ Given this stance it becomes meaningless to interview the contacts of ego.

In addition to interviews, questionnaires (i.e. self-administered schedules) have also been used (see for example: Chatterjee (1976), Crane (1977), Yengoyan (1970), and Aldous and Straus (1966)). As far as questionnaires are concerned Mitchell (1969:31) argues that they should play a supportive rather than major role. Despite obvious disadvantages it remains, however, the only technique that can, in combination with some form of sampling, provide relatively quickly and cheaply masses of data concerning some aspects of networks.

The truth is that all techniques of data collection have certain advantages but also certain limitations. This makes given techniques

suitable for collecting certain information but unsuitable for collecting other kinds of data. Yengoyan (1970:433) argues:

'There is no single kit of tools that is utilizable in all fieldwork, nor is there a finite number of approaches that will render "answers" in all cases.'

It is therefore suggested that network researchers should adopt a position of methodological pluralism. Increasingly anthropologists (see Freilich (1970) and sociologists (see Webb *et al.* (1966), Denzin (1978)) stress the importance of using as many techniques of data collection as possible. This is based on the belief that they will cancel out, as it were, each others weaknesses. Any adequate research design is therefore likely to utilize more than one research technique. In practice this is not something new (see: Cubitt (1973), Whitten (1970), Yengoyan (1970)).

Recording network data is yet another Type 2 problem. Mitchell (1969:11) points to the fact that there is no standardized way of recording information about networks. Similarly, Wolfe (1978:227) stresses the need for a standard method of recording network data. The literature contains only rather vague references to the recording of network data. Mitchell's (1969:33) work serves as a good example. He writes:

'.... data are recorded in descriptive and narrative form in the course of normal fieldwork. The characteristics of the network must then be abstracted from the field-notes. But the interaction is often so complicated that even the most gifted fieldworker stands to miss a good deal.'

The answer to this problem could possibly lie in the use of "check

lists" in matrix form.⁵⁾ These lists could serve a dual purpose; on the one hand they could serve as a guide to observation, on the other they are also a means of quickly recording network data.

Finally, with reference to Type 2 problems, we consider the question of where to begin the analysis. For Whitten and Wolfe (1973:725) it is a question of:

'Upon what egocentric network should an investigator focus?'

They suggest that:

'One strategy is to begin with an ego strategic to action in a particular natural setting.'

(Whitten and Wolfe 1973:740)

Thus, if you are interested in, say, the relationship between social networks and acculturation, it would make sense to select egos who are completely acculturated and egos who still uphold their traditional cultures. Depending on the nature of the problem the investigator may also select an ego who is either central and/or critical to a given network or he may select an ego who is only loosely tied to a given network. On the notions of centrality and criticality it must be noted that a given network may have more than one member who is either central and/or critical to it. It is for this reason that Barnes (1972:4) feels justified in arguing that an egocentric network is the creation of the investigator. This cannot be accepted. Insofar as the investigator selects a given respondent as anchorpoint he is indeed responsible for the decision of where to start the analysis, but to argue that the entire network now becomes the creation of the

researcher does seem invalid. In the final analysis, regardless of how you determine your starting point, the:

'..... important thing is to begin.'
(Whitten and Wolfe 1973:740)

Type 3 problems refer mainly to problems of finding indicators for some of the more abstract theoretical concepts. In the network approach the problem of operationalizing theoretical concepts presents the researcher with a task which is both easy and almost impossible. It is easy in the sense that there are so few highly abstract theoretical concepts, yet so difficult to operationalize the few that do exist. Here we will focus on the more difficult ones, beginning with *content*. Earlier in this chapter "content" was defined as "the meaning that the relationship has for ego". Obviously such "meanings" are not directly observable. Chrisman (1970:246) suggests that:

'The two factors of recruitment and situation give an indication of the content of the link in that they are related to the interests and other personal characteristics of the people involved.'

The fieldworker relying on direct observation could obviously use these factors as indicators of content. Should the researcher rely on interviewing as a method of data collecting it is suggested that, in the absence of agreed upon indicators, he has no choice but to use the respondent's view of the content of a link as the indicator of content.

Like content, *intensity* is another difficult concept to operationalize. Earlier it was defined as:

'..... the degree to which individuals are prepared to honour obligations, or feel free to exercise the rights implied in their link to some other person.'

(Mitchell 1969:27)

Epstein (1969:124) argues that it:

'..... may be gauged in some manner by the frequency of interaction, but even more so by its content.'

Given the difficulties in determining the content of a link this solution is not acceptable. As for using the frequency of contact as an indicator of intensity there is considerable disagreement. Mitchell (1969:29) states categorically that a high frequency of contact does not always imply an intense relationship. This according to Mitchell (1969:29) also applies to the regularity of contact. Thus once again the researcher is dependent on either himself or his respondent for some assessment of the intensity of a link. In the absence of agreement it is, once again, suggested that the respondent's view of the intensity of a link be taken as an indicator of intensity.

The above discussion of methodological issues and problems has been fairly general. It is now necessary to consider these issues in the specific context of this investigation.

2.2. The Methodology of Culture Contact: The Afrikaner as a Minority in Durban

Limited resources plus an attempt to be realistic, not over-ambitious, resulted in certain restrictions being placed on the networks to be studied and analysed. In practice this meant restricting

both the number of people and order of links as well as the content of the links to be included in any one concrete network. In short, the networks analysed are all *partial-segmental* networks. The analysis was first of all restricted to the *first-order zone*, that is, ego, first-order contacts and the links between these first-order contacts. Secondly, the network was restricted in that only contacts tied to ego by at least friendship links were included in the analysis. It is in this sense that restrictions in terms of the content of links was imposed. Given a relationship based on friendship between ego and a contact, however, some other links between ego and that contact were also included in the analysis. Thirdly, and finally, it was decided to include in the analysis of a given network no more than twenty first-order contacts of ego. This figure of twenty is roughly mid-way between the 30 contacts suggested by Mitchell (1969:20) as probably the maximum number of people with whom ego can be in direct and regular contact and the eight contacts which Aldous and Straus (1966) required their respondents to identify. The decision to include 20 and not 30 or eight contacts was not completely arbitrary. A prolonged period of field research⁶⁾ resulted in the conclusion that very few people are likely to have more than 20 first-order contacts based on friendship. This conclusion justified the limit of 20 placed on ego's first-order contacts. Thus Type 1 problems were solved by restricting ego's network to a maximum of 20 first-order contacts tied to ego by at least friendship links plus their links with one another.

Next we consider Type 2 problems. Conforming, in part, to the ideals of methodological pluralism or triangulation (Denzin (1978))

a number of research procedures as well as data gathering techniques were used. It was hoped that this reliance on a multiplexity of procedures and techniques would result in a better understanding of the subject matter with a corresponding increase in the validity and reliability of the data collected.

Participant observation provided the initial and later a supplementary framework for data collection. The almost total lack of data in the area being investigated plus our agreement with Mitchell (1974: 296) that some observer involvement with the observed is essential explains the prominent role of participant observation in this study. It is difficult, if not impossible, to pinpoint the exact date on which participant observation started. The conscious decision to use participant observation, however, goes back to the beginning of 1977. It is from that date onwards that the investigator formally adopted the position of *observer as participant*. Prior to 1977, dating from approximately 1970, the researcher's position was one of *participant as observer*. The early pre-research period, that is the period between 1970 and the beginning of 1977, was important insofar as the researcher increasingly became aware of evidence seemingly contradicting common-sense explanations for the phenomenon of anglicisation amongst Afrikaners in Durban. Moreover different sections of the population often adopted contradictory common-sense explanations. Thus among "pure" Afrikaners and some English-speakers there is a tendency to see anglicisation as something that happens to, and is almost exclusively restricted to, working or lower class Afrikaners. Conversely, there are those, English- and Afrikaans-speakers, who feel that it is the better educated Afrikaners or

Afrikaner intellectuals who are more likely to become more "verlig",⁷⁾ "better disposed toward the English" and eventually anglicised. The researcher, himself an Afrikaans-speaker, going through the often agonizing experience of adapting himself to a new, predominantly English, cultural environment realized that becoming either anglicised or becoming aware of your own identity as an Afrikaner accompanied by a wish to maintain your "purity" as an Afrikaner, could conceivably be seen as two possible reactions to culture contact. Given his own position the researcher obviously had more than a marginal, even more than a scientific, interest in the explanations offered for the phenomenon of anglicisation. This interest and the already mentioned lack of scientific information in a sense "forced" the researcher to adopt the new position of observer as participant. This *role-change* heralded the start of the *formal* data collection stage. A two-year period of intensive, direct observation followed. The almost unique position of the researcher presented both difficulties and, not unexpectedly, advantages. Being an Afrikaans-speaker, a member of the largest Afrikaans Protestant church as well as having children attending an Afrikaans medium school made the traditional participant observation problems of *entry* and establishing *rapport* almost completely unproblematical. In fact acceptance as a member of the Afrikaans-speaking community in Durban preceded the *observer as participant* stage of the research. The researcher's English surname, the fact that he is a sociologist and employed by an English university, however, proved to be factors often affecting *complete* acceptance by the community. It also led to problems of *trust*. Although never overtly displayed the researcher sometimes had the feeling that he

was not completely trusted. Many invitations to address various cultural organizations never got off the ground apparently because those inviting the researcher to do so, subject to confirmation by the organization, apparently failed to convince their colleagues of the trustworthiness of the researcher. In the English community the situation was reversed. Here the researcher's surname, plus his employment at an English university was a positive advantage. It made entry into and acceptance by the community fairly unproblematical. In retrospect it is obvious that the researcher's own somewhat marginal position solved more problems and created fewer problems than was at first anticipated. Entry and acceptance was followed by 12 months during which the researcher purposefully kept "a low profile". This period was spent establishing contacts, listening, looking, searching, trying to make sense out of a mass of idiographic data, accepting and discarding ideas, etc. It was a period of passive observation, all of the time guarding against the greatest danger in participant observation; that of becoming emotionally too involved. The observer's role as an ordinary member, not too conspicuous, not too much in the background, helped to maintain an emotional distance. This position of being there, yet not completely present, opened up certain avenues of information not normally available to those occupying more prominent positions in the community. Being defined as someone who has not yet taken sides makes one the recipient of closely-guarded information. Being close to, yet not in the arena, often results in a competition for your support and the consequent availability of information not known to "the other side". In spite of these advantages it is also

true that certain information never reaches ordinary members. "What goes on at the top" is only known to those at the top or close to the top. The passive stage of observation meant attending various school meetings such as parent evenings; going to fetes organized by various schools, churches, and other cultural organizations; attending both English and Afrikaans church services; attending various social events organized by schools, churches and cultural organizations such as "braais";⁸⁾ attending numerous sporting events, especially rugby games but also swimming galas, etc.; going to a number of plays, music concerts, operettas, etc., organized by schools, churches or other organizations; plus a host of other events. Attending the same event, for example a concert, twice was not uncommon. The more active stage of the participant observation phase meant getting involved, at the organizational level, in some of these activities listed above. This represented a "move to the top" and a consequent opening-up of new channels of information. The transition from the passive to the more active stage was a more or less natural development. In spite of realizing that a move close to the top was necessary in order to obtain additional information the researcher never canvassed for votes or support in order to become a member of any committee or organization. It was felt that such a move could be seen and interpreted as taking sides,⁹⁾ thus blocking other possible sources of information. In order to move closer to the top, however, the "low profile" image had to be discarded. In practice this meant speaking at meetings, offering to help at various functions, etc. Obviously the observer had to avoid, for reasons already mentioned, "sensitive" topics and/or

tasks. The eventual outcome of adopting this more *public image* was involvement in a wide spectrum of activities ranging from the one extreme of rugby coaching to the other extreme of classical music. However, in all fairness it must be admitted that this involvement, much of which continues and is likely to continue for some considerable time in the future, happened *in spite of* rather than as a result of the research interests of the observer. It is for this reason that we have described the transition from the passive to the active stage as "natural". The most difficult problem at this stage was to participate more fully in the activities of the community with its consequent "on stage visibility" while guarding against the possibility of adopting an interventionist role. The problem of not becoming too emotionally involved now became critical. The observer's social conscience coupled with an absolute belief in the need for *fair play* certainly did not help. On two separate occasions the observer could not restrain himself from commenting on remarks which he considered unfair and unwarranted. This had the effect of making more explicit his own values and beliefs perhaps a little prematurely. Fortunately for the research these incidents occurred towards the end of the data collection stage, consequently its effect was no more than marginal. While its effects on the research was minimal the same cannot be said for its effect on the personal relations of the observer. On the one hand it meant withdrawing from active participation in at least two spheres, playing a much more passive role; in short, a return to the *low profile* image, while on the other it led to the severing of two or three personal links.

Whereas discarding the low profile image was a necessary prerequisite for moving closer to the top, the move itself was greatly facilitated by the activities of the observer's children. Their participation in, for example, youth cultural organizations, music, sport, etc., became instrumental in opening up avenues to the top. Their activities also explained and justified the observer's involvement in these activities. Once again all of this happened in spite of rather than as a result of the research. This preserved the naturalness of the situation. It also means that the observer never exploited his own children in order to achieve selfish goals. This involvement of his own children, however, made it so much more difficult to observe without becoming emotionally involved.

Looking back, the overall picture is one of success as far as keeping an emotional distance is concerned. Success in establishing and maintaining this distance is in no small way due to the observer's involvement in the teaching of a "methods" course to under-graduate students at the university where he is employed. This almost daily contact with methodology, techniques, research, observation, etc., makes the methodologist-cum-researcher intensely aware of the pitfalls in doing research. The interplay between reality i.e. doing participant observation, and the ideal i.e. teaching students how to do it, resulted in a lower emotional involvement that would otherwise have been the case.

During the participant observation phase of data collection people were never formally informed about the research. However, not making it public certainly does not imply that there was an

attempt to hide the fact that the observer was doing research. When asked about his interests and research activities, his occupation, etc., information was readily supplied: never once was there an attempt to cover-up, or lie, or supply misleading information. On more than one occasion the observer explained to people the aim and nature of his research. No one ever expressed his or her displeasure; in fact the information was inevitably greeted with great enthusiasm. On one such occasion the following response was noted:

'This is what we've always needed. We even thought of importaing someone from outside' (of Natal) 'to come and do such a study.'

(Translated by the author)

Elsewhere the first half of this phase has been described as a period of establishing contacts, listening, looking, searching, trying to make sense out of a mass of idiographic facts, etc. The second, more active, half included in addition to listening, looking, searching, etc., also occasional questions directed at respondents in order to obtain either more detailed information or to clarify existing information. Except in the more formal situations such as for example meetings, these questions were always asked in the context of an informal personal relationship. As such they were part of the "ordinary conversation" and never in a form resembling a formal interview. The first half of this data collection phase also had to solve the problem of who to regard as anchorpoints for the subsequent analysis of social networks. It was during this time that the observer identified those egos who were critical to the analysis. This meant distinguishing between three categories of people, viz. pure, marginal and anglicised. Data collected during

the pre-research and passive stages served as the basis for making these distinctions. The second, more active, state followed with a focus on those respondents who were labelled either *pure*, *marginal* or *anglicised*. These anchorpoints were critical in that they served as true representatives of a given category of people. They were regarded as representative in that each displayed, we believe, all or most of the important characteristics of their respective universes. Evidence that these universes do not exist exclusively in the imagination of the observer is to be found in numerous references to: "ware" (true) or "suiwer" (pure) or "super" Afrikaners; "draadsitters" (one who sits on the fence); or those who are "verengelsed" (anglicised). These categories are used by the actors themselves in distinguishing between one person and another. Having identified the anchorpoints the second phase of the first stage of data collection required a detailed study of the social networks of the egos selected in order to determine the characteristics, both morphological and interactional, of their social networks. That there was some relationship between the social network of the actor and his position in one of the three categories identified became evident during the early stages of participant observation. To discover *what kind of network is related to each of three kinds of reaction to culture contact* demanded this more detailed study of specified networks.

The recording of data during the participant observation phase consisted of detailed field notes. Notes were recorded on 8" x 5" cards, classified under appropriate headings with cross-references where necessary. With the exception of formal meetings where note taking was regarded as normal, no notes were taken in

the presence of those observed. This meant making notes as soon as possible after observations, usually in the evenings.

Data collected during the first phase of the research suggested very definite trends which became the basis for our tentative working hypotheses to be tested during the second phase of the first stage. The evidence collected during this second phase overwhelmingly supported the hypotheses, strengthening our belief in its validity. The only remaining uncertainty relates to the question of whether or not the data trends merely reflect the observer's limited focus in that he could only observe in certain situations, under certain conditions, at certain times. In short, did the observer's situation-specificity obscure other data which would have resulted in perhaps the opposite conclusions? In an advanced, highly complex, modern, industrial society it is simply impossible to observe more than a mere fraction of a respondent's behaviour over a given period of time. What happens in those situations to which the observer has no access¹⁰⁾ can certainly not be ascertained by means of direct observation. In an attempt to compensate for the situation-specificity of the observer it was decided to use, in addition to direct observation, some more traditional survey type techniques. With this decision the second stage of data collection was about to begin. The fieldwork now consisted of depth interviews as well as interviews conducted within the framework of a pre-determined interview schedule, network worksheet and network matrix. This approach had a fortuitous by-product in that it enabled the investigator to analyse many more networks than initially intended. It must be remembered, however, that participant observation data

were not available for those personal networks added to the sample during the second stage of data collection.

Information collected during the participant observation stage guided the construction of the interview schedule, network matrix and network worksheet.¹¹⁾ In turn these data collection forms were used to systematize participant observation data. This had the effect of making the data collected by means of two different techniques directly comparable.

The interview schedule was used to obtain and record data about ego's personal background characteristics. Information obtained in response to items one (home language), two (religion), three (language medium of school of child or children), four (socio-cultural organizations), five (political views) and six (identity), enabled the researcher to identify and describe the behaviour patterns referred to as pure, marginal and anglicised.¹²⁾ Items 5, 7, 8, 9, 10 and 11 were included in order to determine the relevance of some alternative and/or intervening variables for ego's behaviour.

The interviewee was also requested to provide certain information about no more than 20 of his direct contacts who are also friends. This information was recorded on a network matrix (see: Appendix B) and a network worksheet (see: Appendix C). The matrix contained information about the density of ego's network as seen through the eyes of the respondent himself. Thus the respondent was asked whether or not a relationship exists between two specified contacts. Both theoretical and practical considerations dictated this procedure. First, it would have been prohibitively time-consuming and expensive to interview each of ego's contacts in order to ascertain the "true"

density of ego's network. Secondly, it was argued that only those links perceived by ego, whether real or imagined, could conceivably influence his behaviour.

The worksheet (see: Appendix C) contained information about ego's first-order contacts as well as information about ego's links with his first-order contacts. On it was recorded information about the content of links, the multiplexity of links, the homo-/heterogeneity of ego's network, the durability of links, the frequency of contact, spatial distribution of contacts, and other information considered relevant by the interviewer and/or interviewee.

The sample used during the second, interview stage, of data collection, included two kinds of respondents. First, there were those observed during the participant observation stage. With the exception of three respondents considered to be anglicised, this category included only "pure Afrikaners" and "marginal" respondents. For each of the respondents in this category much data was already available. Secondly, the sample consisted of respondents for whom no participant observation data were available. This second category of respondents consisted mainly of respondents considered to be anglicised.

The selection of sample units proved problematical in that the participant observation phase failed to identify more than a mere handful of anglicised respondents. To overcome this problem two separate yet interdependent methods were used. Participant observation provided respondents considered to be "pure", "marginal" and

also three respondents considered to be anglicised. The second method of selecting units consisted of a process of snowball sampling (see: Bailey (1978), Eckhard and Ermann (1979)) using the respondents identified by means of participant observation, as the starting-point. The use of two procedures for selecting sampling units explains the existence of the two categories of respondents included in the final sample.

In tabular form the data gathering phase can be summarized as follows:

TABLE 10
SUMMARY OF DATA COLLECTION PHASE

	PRE-RESEARCH STAGE	STAGE 1	STAGE 2
Research Procedure	Participant Observation	Participant Observation	Quasi-Survey
Role of Investigator	Participant as Observer	<u>Phase 1</u> : Passive Observer as Participant <u>Phase 2</u> : Active Observer as Participant	Indirect Observer and Interviewer
Data Collection Techniques	Direct Observation	Direct Observation	Structured Interviews Depth Interviews
Recording of Data	Fieldnotes	Fieldnotes	Structured Interview Schedules, Network Matrixes, Network Worksheets
Selection of Sample Units	None: No Sample	<u>Phase 1</u> : Direct Observation, Criticality <u>Phase 2</u> : Study Units Identified in Phase 1	<u>Method 1</u> : Units Observed in Stage 1, Phase 2 <u>Method 2</u> : Snowball Sampling

Finally, and in conclusion, the problem of indexes and operational definitions, previously referred to as Type 3 problems, must be considered.

With reference to the social network, our hypotheses specified three morphological variables (Density, Homo-/Heterogeneity and Size) and three interactional variables (Content Multiplexity, Durability and Frequency) that are presumed to be related to the behaviour of ego in a situation of culture contact. Operationally density was defined as: *ego's perception of the extent to which his/her first-order contacts know one another.* In practice the respondent had to indicate for each of his/her contacts whether or not they know all the other contacts in his/her first-order star. Thus ego's response to a question concerning the links between his/her first-order contacts became the indicator of the existence of such links. Next, on the basis of the information supplied by ego the density of the network was calculated by means of the following formula:¹³⁾

$$D = \frac{200 E_a}{N(N-1)}$$

Here:

D = Density of the network

E_a = Ego's perception of the total number of links existing between his first-order contacts excluding his own direct links

N(N-1) = Total number of theoretically possible relations

N = Total number of people in the network excluding ego

The size of ego's first-order star was taken to be the number of people identified by him as friends. However because of the limitations placed on the number of first-order contacts to be included in the analysis of any given network, the evidence with

regard to the size of ego's first-order star and behaviour patterns must be regarded as inconclusive. Determining the homo-/heterogeneity of any given network depended on the researcher's ability to identify the number of links of like content existing between ego and his contacts. Homo-/heterogeneity was operationalized by defining it in relation to the number of relations of like content existing between ego and his first-order contacts.¹⁴⁾ Where ego had much in common with his first-order contacts his network was described as homogeneous. Conversely, where ego and his first-order contacts had very little in common the network was described as heterogeneous. The actual measure of homo-/heterogeneity was achieved by means of the following formula:¹⁵⁾

$$H = \frac{100 a}{Na}$$

Here:

H = Homo-/Heterogeneity

a = Actual number of links of like content between ego and all his first-order contacts

Na = Number of theoretically possible links of like content

Content multiplexity refers to the concurrence of several contents in one network link. In this study multiplexity was calculated only for ego's first-order star with the additional restriction that the researcher specified the kinds of content to be included in the analysis. The actual degree of multiplexity was calculated by means of the following formula:¹⁶⁾

$$Sm = \frac{100m a}{N}$$

In the above formula:

S_m = Star multiplexity

m_a = Actual number of multiplex links

N = Total number of direct links¹⁷⁾

Although *frequency* and *durability* really refer only to a given, specified link it was decided to calculate a frequency and durability *score* for each network thereby making possible the comparison of one network with another. In both cases some average, or "norm" or "standard" had to be calculated. Operationally *durability* was defined as "the age of ego's network relative to ego's period of residency in Durban". To calculate the durability of a given network the following procedure was adopted. First, the age of ego's network was calculated by assigning to each first-order link a "score" based on the number of months that ego has known a given contact. These scores were assigned as follows:

MONTHS KNOWN TO EGO/ MONTHS RESIDENT IN DURBAN	SCORE
0 - 11	1
12 - 23	2
24 - 35	3
36 - 47	4
48 - 59	5
60+	6

Next, the median score was identified and selected as the indicator of the age of ego's network. Secondly, ego's period of residence in Durban was also scored using the same six point scale that was applied to the "age of links". Finally, a durability score was calculated by means of the following formula:¹⁸⁾

$$\text{Durability} = \frac{\text{Network age score} \times 100}{\text{Residence score}}$$

A simple arithmetic average of the number of times per month that ego comes into contact with the members of his first-order star was taken as an indicator of the *frequency of contact* for a given network.

Respondents were classified into one of three categories, viz. *pure Afrikaners*, *marginal* or *anglicised*. The labels "ware" (pure), "draadsitters" (marginal) and "verengelsde" (anglicised) are obviously used by members of the community as a "shorthand" description of certain behaviour patterns. In the present study we focus on those egos *clearly identified by the community* as belonging to one or the other category.

3. CONCLUDING REMARKS

Two separate, yet interdependent, reasons, the one practical, the other methodological, are responsible for the absence of a "pure" research design in this study. The almost total lack of information on the topic under investigation made it absolutely imperative to establish close and intimate contact with the community to be studied. In short, observer-involvement was necessary. The two year period of participant observation was in direct response

to this problem. However, the situation, a highly complex urban setting, did affect the kinds of data available to the observer. This necessitated the introduction of interviewing, interview schedules and other data collection and recording forms in order to obtain information not directly available to the observer. In short, practical considerations determined, in part, the nature of the research design.

Secondly, the researcher's methodological stance also determined the nature of the research design. Within the framework of methodological pluralism it was argued that all data-gathering techniques as well as research procedures have certain advantages but also certain limitations or weaknesses. Given this fact, it was hoped that the use of more than one procedure and more than one technique would cancel out, as it were, each other's weaknesses. The extent to which this has happened, resulting in more valid and reliable data, will be considered at a later stage.

Ethical considerations relating to safeguarding the anonymity of informants when publishing social science results, especially field research findings, also have a bearing on the present study. The problem lies in the fact that the

".... social scientist learns things about the people he studies that may harm them, if made public either in fact or in their belief."

(Becker, 1979:325)

To a greater or lesser extent all the conditions affecting the problem of reporting (see: Fichter and Kolb, 1953:96-97) apply to the study under consideration. Thus, we have: One, multiple

loyalties — to other social scientists, to the community studied and also the individual members of the community studied; Two, respondents who are in a position to be affected because they will have access to the research report; Three, research focussing on behaviour related to "sacred" values; Fourth, and finally, the possibility of readers identifying respondents when our mode of analysis is qualitative rather than quantitative.

The problem of anonymity, referred to above, had a significant influence on the detail and richness of data reported in Chapter Four. By not making public, for each case discussed in the next chapter, all the available information, the chance of any one individual being identified is considerably reduced. Sometimes critical information was deliberately disguised and made impersonal in order to prevent identification. It could be argued that pure Afrikaners, in particular, may be very happy to have their "purity" confirmed. However, it is very doubtful whether people identified as either "marginal" or "anglicised" would be equally happy to have their identities made public. (See: Chapter Six, pp.306ff.) One reason for this seems fairly obvious. Becker (1979:330) argues:

"... the social scientist offends those he studies by describing deviations, either from some formal or informal rule, or from a strongly held ideal."

We "solved" the problem of reporting by following the advice of Becker (1979:339) who recommends:

"..... one should refrain from publishing items of fact or conclusions that are not necessary to one's argument or that would cause suffering out of proportion to the scientific gain of making them public."

In addition to harming the people you are studying there is also the possibility that the researcher may harm himself and/or the members of his family by making all his research findings public. It seems to us that the likelihood of this happening is far greater in those situations where the researcher remains in the community after completing his research, as is the case in the study under consideration. *What* is made public, and the *form* in which it is made public may depend, at least in part, on the researcher's assessment of "personal cost" which is in turn influenced by his relationship to those he has studied. Our decision not to report both fully and freely relates, at least partially, to the problem of personal cost.

The role played by ethical problems and personal considerations in reporting data, especially that based on participant observation, inevitably raises the question whether the nature and validity of conclusions are also affected. In the present study our answer is a categorical "NO", because our conclusions are based on all available data whether made public or not.

NOTES

1. In the present study we impose structural restrictions by limiting social networks and the analysis of them to: (a) the first-order zone and (b) twenty first-order contacts.
2. In the present study we impose an interactional restriction on social networks and the analysis of them by including only contacts tied to ego by at least friendship links.
3. The investigator is involved in the "construction of the social network" insofar as he is responsible for the decision to focus on a given ego. In addition, where the researcher relies exclusively on direct observation, it is conceivable that his conception of a given actor's network may be different from that of the actor himself. Where this happens it could be argued that the researcher is at least in part responsible for the construction of the social network that he analyses.
4. See also Killworth and Bernard's (1978:162) distinction between "cognitive" and "behavioural" networks.
5. To be discussed in more detail later within the specific context of this study. See pp.130-133.
6. Discussed in more detail later. See pp.122-128.
7. The words "verlig" and "verkramp" are used to identify two opposing political stances, the one pragmatic (verlig), the other dogmatic (verkramp). More recently it has acquired an additional meaning in that it is often used to identify a Nationalist Party supporter who questions aspects of the policy of separate development.
8. The term "braai" is used to indicate an informal, social gathering of people where meat, usually lamb chops, steaks and sausage, is roasted on an open fire.
9. Canvassing for and receiving support inevitably imply some transaction between canvasser and supporter with the implicit, if not explicit, understanding that support would be forthcoming should the roles be reversed. Such an alliance implies "taking sides".
10. It is often difficult, if not impossible, to observe the respondent at work, or when he/she is on vacation or when he/she attends meetings at private clubs, etc.
11. For copies of the interview schedule, network matrix and network worksheets see Appendices A, B, C and D.

12. See Appendix A.
13. This formula is an adaptation of the one suggested by Barnes (1969:63-64).
14. For pragmatic reasons limitations were placed on the range of responses in that the investigator specified the kinds of content to be considered by the respondent. See Appendix C.
15. Devised by the researcher.
16. The formula is suggested by Kapferer. See: Kapferer (1969:226).
17. The total number of direct links = the size of ego's first-order star.
18. Devised by the researcher.

CHAPTER FOURPRESENTATION AND ANALYSIS OF DATA COLLECTED
BY MEANS OF PARTICIPANT OBSERVATION1. INTRODUCTION

In this chapter we present, discuss and analyse data collected by means of direct observation during a fairly extended period of participant observation. The data are presented in the form of a discussion of six social networks; two each from the three categories of actors, viz. pure, marginal and anglicised. Our decision to discuss two social networks from each category was in response to the need to control for the influence, if any, of social class or socio-economic position. Using occupation as our indicator of social class or socio-economic position, we focus, within each category on one *professional* and one *blue collar* worker. In addition we control for both age and sex by considering only males in the age category 30 to 45. In this age group most people are either at, or very close to, the top in their particular occupations. Thus it is unlikely that any dramatic change in status will occur.

The aim of this analysis is to develop, and find some evidence in support of, specific hypotheses concerning people's reactions to situations of culture contact.

2. SOCIAL NETWORKS

2.1. Pure Afrikaners

2.1.1. Ego A

Ego A is the personification of the pure Afrikaner. He is approximately 40 years old, a professional man, who settled in Durban during the sixties. He grew up on a farm in the Transvaal, attended an Afrikaans medium school and university and also spent some time overseas. Married with young children he lives in what is considered to be one of the upper-middle class neighbourhoods of Durban. With a high occupational status, high educational qualifications, and a very high income he finds himself in a situation of complete status consistency. In spite of the fact that he has been in an urban environment for many years he has not severed his links with his rural background.

Ego A is also an enthusiastic, somewhat conservative, supporter of the Nationalist Party. He implicitly believes in, and accepts, the policy of separate development as the *only solution to South Africa's problems*. In his eyes the Nationalist Party always acts in the best interest of South Africa. In short, what is in the interest of the Party is also, *ipso facto*, in the national interest. The two stand in a one to one relationship to each other. An Afrikaans-speaker who is not also a supporter of the Nationalist Party is by definition not a "ware" (true) Afrikaner!

As a staunch Calvinist Ego A is also a very religious person. He is a member of one of the three Afrikaans sister-churches.

In the church itself he occupies a very prominent leadership position. Some of his fellow colleagues even believe that he has more power than his position really warrants! Whether this is true or not, it cannot be denied that he has a tremendous influence in the church of which he is a member.

Ego A also plays a very active role in all of the affairs of the school attended by his children. Once again, as in the church, he occupies a leadership position. With very few exceptions he enjoys the respect and admiration of the entire parent body. Most parents regard him as someone who really has the best, and only the best, interests of the school at heart. He attends most school functions regularly and is known, by name, to a very large number of parents.

In addition to his involvement in church, school and party political activities, Ego A is also a very active and dedicated member of at least three cultural organizations.¹⁾ As such he plays a very active, and once again a very prominent, role in the maintenance and promotion of everything considered to be part of the Afrikaans culture and Afrikaner *way of life*. The Afrikaans language, music, in short, everything "Afrikaans" is of paramount importance to him. He sees himself first and foremost as an Afrikaner. By Afrikaner he means someone who speaks Afrikaans, who is a Calvinist and who supports the Nationalist Party. In addition a "ware" Afrikaner will also promote, where possible, the *Afrikaner's cause*.

Given Ego's prominence in so many situations, ranging from political, religious, and educational to cultural, it is obvious

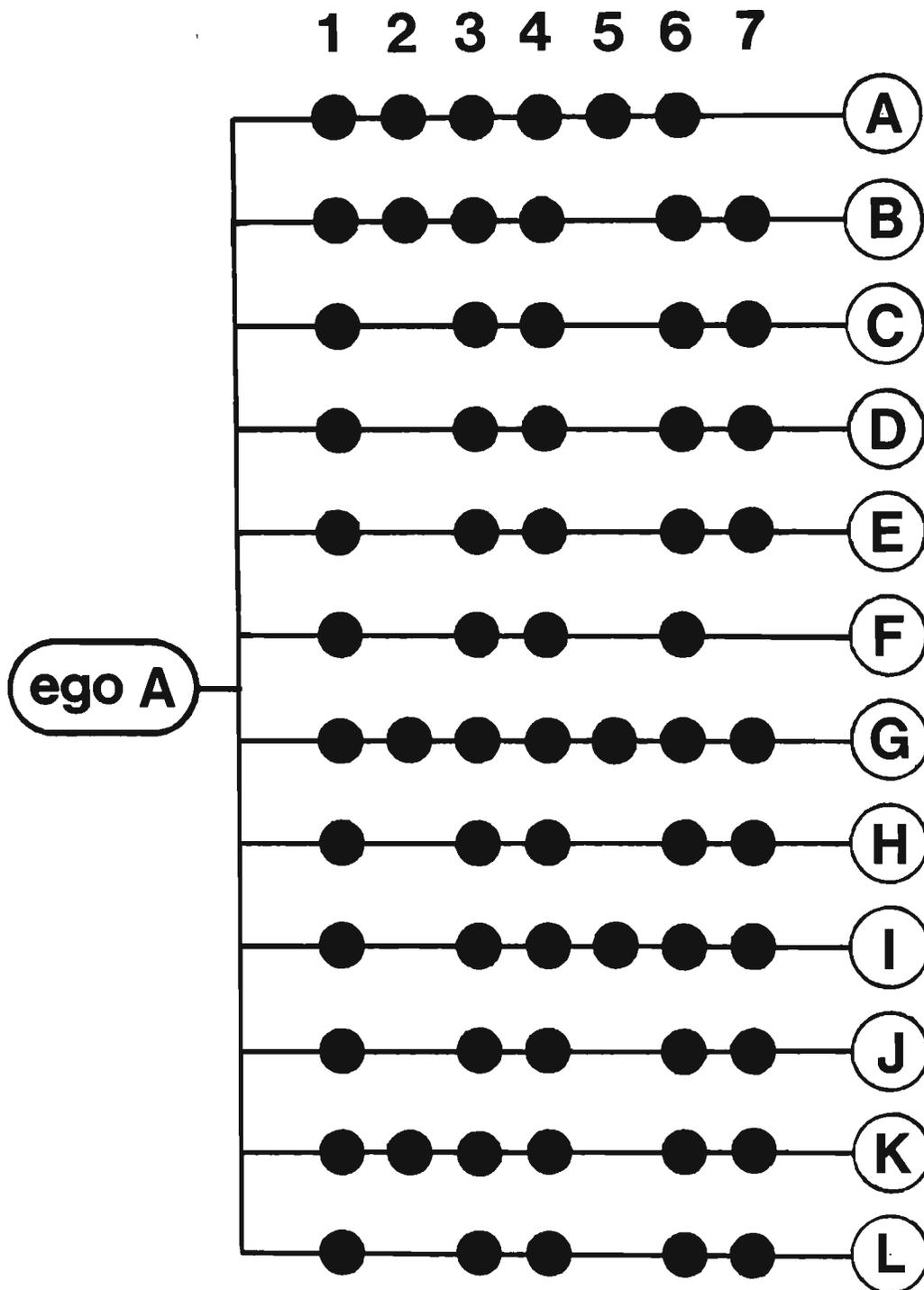
that he is a member of Durban's Afrikaner elite.

Turning now to a description and analysis of Ego A's social network, we begin our discussion with the observation that he has, of all the networks studied, the largest number of first-order contacts. Ignoring content, his first-order star includes, as far as we could ascertain, at least 60 people with whom he has regular and frequent contact. Should we include all people that he knows by name and that, in turn, know him by name, this figure of 60 is probably a very conservative estimate. However, it is unlikely that he would have close intimate friendship links with more than 30 of these contacts. We identified and observed 12 contacts that we considered to be close, intimate friends of Ego A. In the analysis that follows, all references to Ego's contacts include only these 12 individuals.

Considering, first, the content of the links between Ego and his first-order contacts we observed the following. He was obviously tied to all of them by friendship. In addition he shares with four of his contacts a common interest in the school attended by their children. With all 12 he shares a common home language, common political views and religious beliefs. As far as we could ascertain, at least three of his first-order contacts are also members of two of the cultural organizations to which Ego A belongs. With two of the last mentioned three contacts, Ego also shares a common interest in the school attended by their children. Diagram 13 summarizes the above discussion of the content of the links between Ego A and his 12 first-order contacts.

DIAGRAM 13

EGO A : FIRST-ORDER STAR : CONTENT OF LINKS



NOTES:

1 = Friendship 2 = School 3 = Political views 4 = Religion
 5 = Cultural organizations 6 = Home language 7 = Social class

As far as the density of Ego's network is concerned we have a situation where all 12 of his first-order contacts know one another independently of him. However, the links between Ego's first-order contacts are not always based on friendship. They all do have in common with each other though political, religious and home language ties. A few also share school and cultural organization membership ties.

It is noteworthy that none of Ego's contacts find themselves in blue-collar occupations. Using occupation as an indicator of social class, the great majority, namely ten out of a possible 12, would probably be classified as upper-middle class with the remaining two being classified as middle class. For this reason it cannot be argued that his network really cuts-across class divisions.

Analysing Ego A's network we observe a number of very significant characteristics. First, his network is extremely homogeneous. Thus, in terms of the content of links, but also in terms of socio-economic position there is a remarkable similarity between Ego A and his 12 first-order contacts identified by the researcher. Using the content and class homogeneity of the network as an indicator of the homo-/heterogeneity of Ego's social network, we calculate the homo-/heterogeneity of his network by means of the following formula:

$$\begin{aligned}
 H &= \frac{100 a}{Na} \\
 &= \frac{100 \times 65}{12 \times 7} \\
 &= \frac{6500}{84} \\
 &= \underline{\underline{77.38}}
 \end{aligned}$$

In this formula:

H = Range

a = Actual number of links of like content between Ego and all his first-order contacts

Na = Number of theoretical possible links of like content

Secondly, we note that Ego's network has a very high density. In order to measure density we use the following formula:

$$\begin{aligned}
 D &= \frac{200 a}{n(n-1)} \\
 &= \frac{200 \times 66}{12(12-1)} \\
 &= \frac{13200}{132} \\
 &= \underline{\underline{100.00}}
 \end{aligned}$$

In this formula:

D = Density

a = The links between Ego's first-order contacts excluding his own links with his contacts

n = Number of persons in the network excluding Ego

Thirdly, and finally, it is evident from the above discussion that Ego A is tied to all of his first-order contacts by means of multiplex links. Calculating the multiplexity (star multiplexity) of Ego's network we use the following formula:

$$\begin{aligned}
 S_m &= \frac{100 \times m_a}{N} \\
 &= \frac{100 \times 12}{12} \\
 &= \frac{1200}{12} \\
 &= \underline{\underline{100.00}}
 \end{aligned}$$

In this formula:

S_m = Star multiplexity

m_a = Actual number of multiplex links

N = Total number of direct links

Not only do the three "scores", calculated above, summarize a host of information about Ego A's network but, most importantly, it also facilitates a comparison of this network with the networks of egos from other categories of people. Hopefully such a comparison will tell us something about reactions to situations of culture contact.

2.1.2. Ego B

Ego B, also a pure Afrikaner, is employed in a "blue-collar" occupation. He is in his early thirties, married with no children. The only son of working class parents, he was born in Durban, and grew up in Durban in a working class neighbourhood. Since his marriage he has moved into his own house which is, once again, situated in one of Durban's so-called working class suburbs. In short, Ego B has never lived anywhere else but in a working class area in Durban. Describing himself as a true urbanite he has no rural ties whatsoever. Unlike so many Afrikaners who express a wish to *return to the land* Ego B seems to have no such longing.

As is so often the case with blue-collar workers, Ego B's income status is much higher than his educational and occupational status. This situation of a consistent educational and occupational

status with an inconsistent high income status makes Ego B marginal as far as his social status is concerned. (See: Close (1968.)) His higher income enables him to buy various "status symbols", such as, for example, large expensive motor-cars.

Although he supports the Nationalist Party he is, politically speaking, very conservative. In fact his political views are much closer to those expressed by H.N.P. supporters than those held by Nationalist Party supporters.²⁾ He believes in total and systematic segregation, seeing it as the only solution to South Africa's "problems". The white man's survival in South Africa can only be achieved via segregation at all levels. All moves to desegregate public facilities can only result in integration. The latter is seen as an inevitable consequence of desegregation. This conservative stance does make him very critical of the Nationalist Party, especially when he thinks that there is a move to the "left".

As a member of one of the Afrikaans sister-churches he attends church fairly often. Unlike Ego A, however, he cannot be described as overtly religious. In other words, he does not occupy a leadership position in the church nor does he ever talk about religion.

Although Ego B always describes himself as an Afrikaner, he does not belong to any so-called cultural organizations. Once he did get involved in one such organization but his work prevented him from attending meetings on a regular basis. This resulted in his eventual withdrawal from that organization. He now feels that the

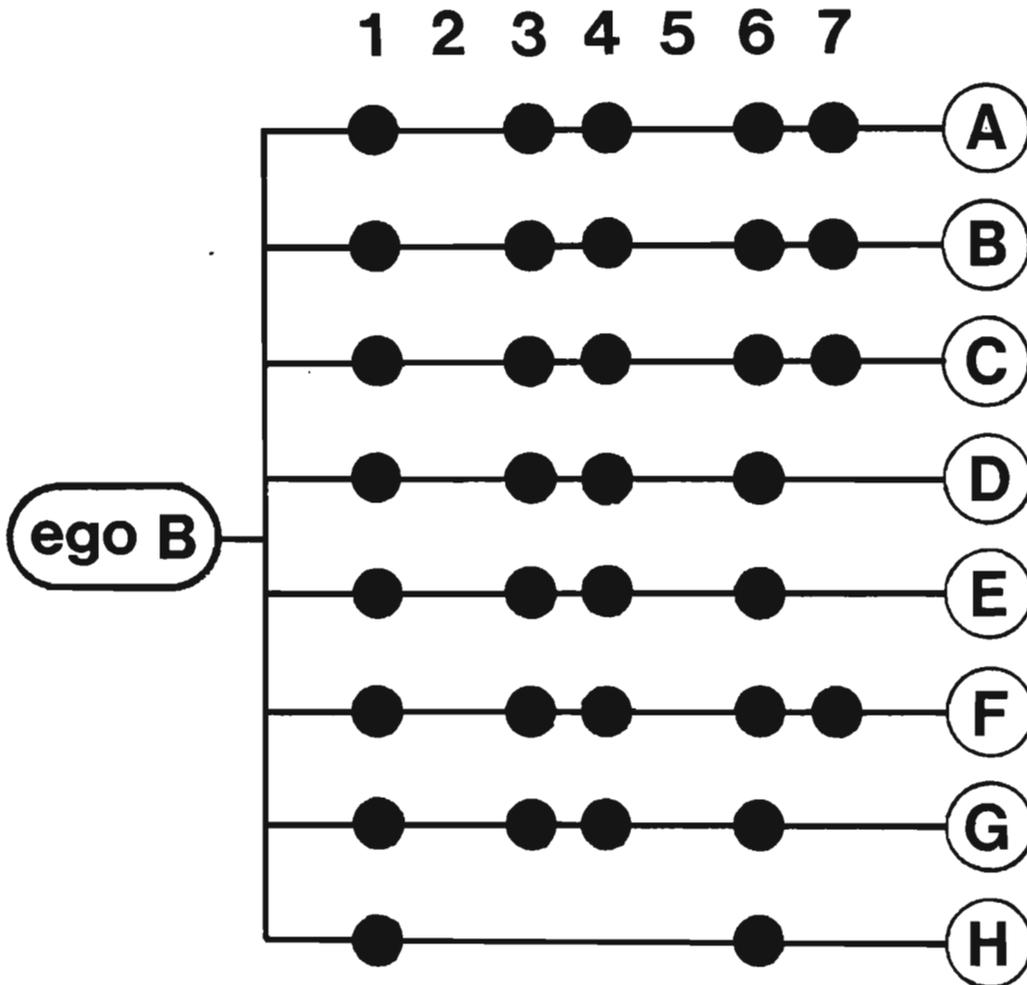
nature of his job (he has to do shift work) will always prevent him from becoming a member of any club, social, or cultural organization which requires frequent and regular attendance.

Considering Ego B's social network we note that he has a fairly large social network consisting of 26 first-order contacts. However, most of these contacts are members of Ego's family. The prominence of relatives among his first-order contacts can best be explained by the fact that almost the entire family lives in Durban. For purposes of the analysis we have selected eight first-order contacts whom we considered to be close friends of Ego B.

Focussing on the content of the links between Ego B and his first-order contacts³⁾ we note the following. Because of the method of selection Ego is tied to all eight contacts by friendship links. He also shares with his first-order contacts a common home language. With seven of his eight contacts he shares, in addition, common political and religious ties. Diagram 14 summarizes this information.

Summarized in the matrix on page 151 is all the information pertaining to the density of Ego B's social network. With the exception of H who is only known to, and himself only knows, contacts B, C and E, all of Ego's first-order contacts know one another. Once again it is necessary to stress the fact that the links between Ego's first-order contacts do not always include friendship ties. Contacts A to G (excluding H) do have in common, however, at least three things, viz. home language, religious beliefs and political views.

DIAGRAM 14

EGO B : FIRST-ORDER STAR : CONTENT OF LINKSNOTES:

1 = Friendship

3 = Political views

4 = Religion

6 = Home language

7 = Social class

	A	B	C	D	E	F	G	H
A	-	1	1	1	1	1	1	0
B	1	-	1	1	1	1	1	1
C	1	1	-	1	1	1	1	1
D	1	1	1	-	1	1	1	0
E	1	1	1	1	-	1	1	1
F	1	1	1	1	1	-	1	0
G	1	1	1	1	1	1	-	0
H	0	1	1	0	1	0	0	-

Notes: 1 = link, 0 = no link

Using occupation as an indicator of social class or socio-economic status we find that Ego B's network cuts-across class lines, albeit only to a limited extent. Of his eight first-order contacts half or four share with Ego B his working class status. Of the remaining four, three could be classified as middle class, while one only is a member of what could be described as the upper-middle class.

Analysing Ego B's network we once again focus on its homo-/heterogeneity, density and content multiplexity.

Using the content and class homogeneity of Ego's network as an indicator of its homo-/heterogeneity we arrive at a "score" by using the formula suggested earlier, namely:

$$\begin{aligned} H &= \frac{100 a}{Na} \\ &= \frac{100 \times 36}{8 \times 5} \\ &= \frac{3600}{40} \\ &= \underline{\underline{90,00}} \end{aligned}$$

Using the formula $D = 200a/N(N-1)$ we arrive at the following "score" for the density of Ego B's network:

$$\begin{aligned} D &= \frac{200 a}{N(N-1)} \\ &= \frac{200 \times 24}{8(8-1)} \\ &= \frac{4800}{56} \\ &= \underline{\underline{85,72}} \end{aligned}$$

Finally in calculating the "score" for Ego B's star multiplexity we use our earlier formula, viz.:

$$\begin{aligned} S_m &= \frac{100 \times ma}{N} \\ &= \frac{100 \times 8}{8} \\ &= \underline{\underline{100,00}} \end{aligned}$$

2.2. Anglicised Networks

2.2.1. Ego C

Ego C, a professional man, is considered to be completely

anglicised in terms of our definition discussed in the previous chapter.

His father was one of seven children who lived on a farm, owned by Ego's grandfather, in the Transvaal. The farm being too small to be subdivided between seven children, Ego's father left for a large city where he was employed by the City Council. Part of his work for the Council entailed the "screening" of applicants for work. In the course of his work he came to the conclusion that those applicants who attended English medium schools, especially the so-called "better ones", had a better chance of "getting the job". This conclusion influenced his decision to send his own children to an English medium school. Thus Ego C found himself being sent to an English medium Anglican Church school. Here he attended church twice a day. In 1948 he wrote matric whereafter he went to an English medium university. After completing his university studies he applied for a position in another large city. When this application was not successful he decided to come to Durban thinking that he would, in any case, "feel more at home" in Natal. He arrived in Durban approximately twenty years ago. Here he met and married an English-speaking girl.

Ego C has very definite views about Afrikaans and Afrikaners in general. He is convinced, for example, that whenever he signs a hotel register in any of the provinces other than Natal, he receives excellent service merely because of his Afrikaans surname which, he argues, is taken as an indication that he is an Afrikaner! He also feels that Afrikaans-speakers in Durban react

negatively towards him when they discover that he "cannot" speak Afrikaans, precisely because they expect him to be fluent in Afrikaans given his surname. When not in Natal he is prepared to speak Afrikaans but only on condition that the other person cannot speak English at all or when it is obvious to him that his ".... Afrikaans is better than their English". In Durban people must either speak English to him or "lump it".

Ego C often describes himself as "verkrampt". By this he means three things. First, he accepts the "policy of apartheid". Secondly, he votes for the Nationalist Party. Third and finally, it is unlikely, according to him, that he will ever change his views.

Although he still listens to religious sermons on the radio, especially Dutch Reformed Church services, he no longer goes to church. He argues that he had an "overdose of church" when he was young. The reason why he is prepared to listen to a D.R.C. service is because "they are conservative".

Considering Ego's recreational and leisure time activities we see that he is very interested in sport, he often eats out and also owns a beach cottage, which he often visits. In addition he often visits the Kruger National Park when on holiday.

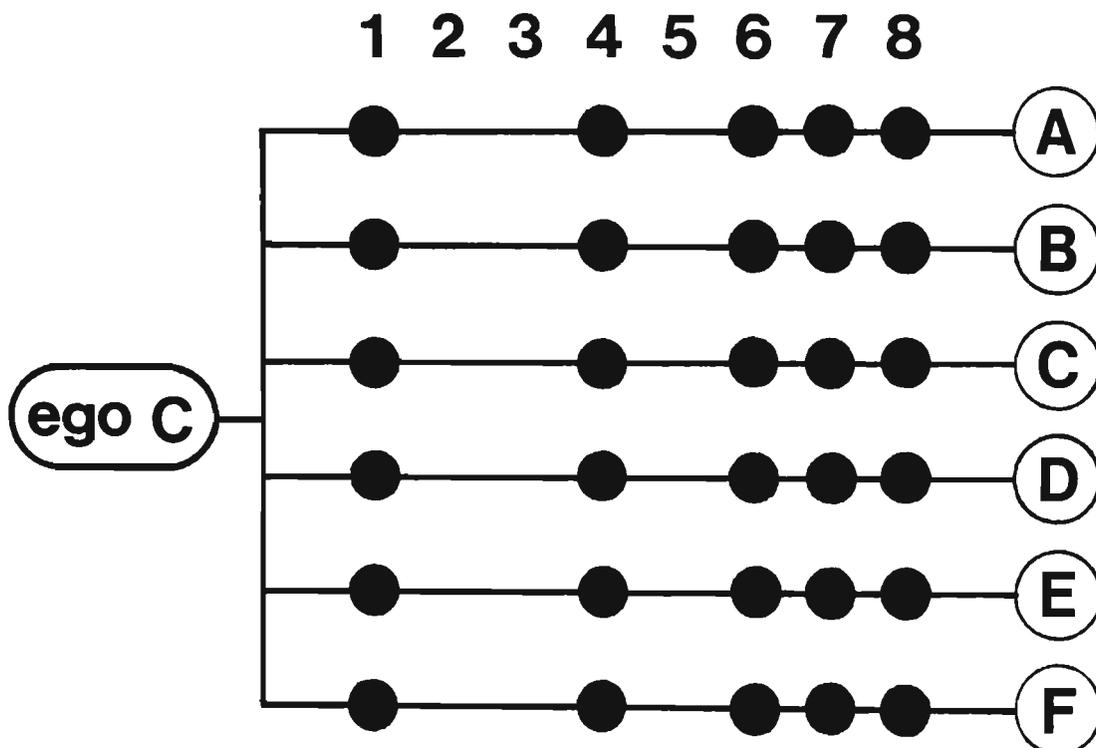
With a high income, high educational qualifications and a high occupational status, Ego C's status is completely consistent. In addition he lives in what is commonly considered to be one of Durban's upper class suburbs.

This brings us to Ego C's network. To begin with, it is relatively small. We could identify only six close, intimate friends of Ego C.

Again, because of the method of selection, Ego is tied to all six by friendship links. All six of his first-order contacts also speak mostly English in their homes. In addition he shares with them all common religious beliefs as well as identical recreational and leisure time activities. For example, they often have dinner together, and even go to the same place when on vacation. However, politically they do not see eye to eye. His contacts are supporters of either the New Republican Party or the Progressive Federal Party. Diagram 15, below, summarizes this information.

DIAGRAM 15

EGO C : FIRST-ORDER STAR : CONTENT OF LINKS



NOTES:

1 = Friendship
7 = Social class

4 = Religion
8 = Recreational activities

6 = Home language

Ego's contacts all know each other independently of their links with him. This again implies that Ego has a very dense network. The one thing which applies to these linkages of the links, which does not apply to the networks discussed so far, is the fact that they *all* include a friendship tie, in addition to the other links of like content.

Comparing Ego's social status with that of his first-order contacts we note that they are all members of the so-called upper-middle class. They all share similar life styles and in fact all live in the same high status neighbourhood.

Using the same indexes and formulas employed earlier, we calculate the homo-/heterogeneity, density and star-multiplexity of Ego C's social network. The following scores apply:

$$\begin{aligned}
 \text{a) } \underline{\text{Homo-/Heterogeneity}} \quad H &= \frac{100 \ a}{Na} \\
 &= \frac{100 \times 30}{6 \times 6} \\
 &= \frac{3000}{36} \\
 &= \underline{\underline{83.33}}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } \underline{\text{Density}} \quad D &= \frac{200 \ a}{N(N-1)} \\
 &= \frac{200 \times 15}{6(6-1)} \\
 &= \frac{3000}{30} \\
 &= \underline{\underline{100.00}}
 \end{aligned}$$

$$\begin{aligned}
 \text{c) } \underline{\text{Star Multiplexity}} \quad S_m &= \frac{100 \times m_a}{N} \\
 &= \frac{100 \times 6}{6} \\
 &= \frac{600}{6} \\
 &= \underline{\underline{100.00}}
 \end{aligned}$$

2.2.2. Ego D

Like Ego C, D is also completely anglicised. He is in his early forties, married, with three children. Ego D, a blue-collar worker, has lived in the same working class area for the past 25 years. It was here that he met, and married a working class English-speaking girl. Prior to his marriage his home language was Afrikaans while he was also a member of one of the three Afrikaans sister-churches. Subsequently, however, he adopted English as home language and also became a member of one of the English Protestant churches. Not overtly religious, he attends church approximately once a month. According to him, attending church more frequently is made impossible by the nature of his work, which includes shift work. He encourages his children to attend Sunday School which they do fairly regularly. In addition Ego himself attends all functions, for example braais, organized by the church.

Ego D sends his children to an English medium school in the neighbourhood. This, together with the change of home language and religious affiliation, is a good measure of the extent to which Ego D is anglicised.

With a low occupational status as well as low educational qualifications but a middle income status, Ego D finds himself, like

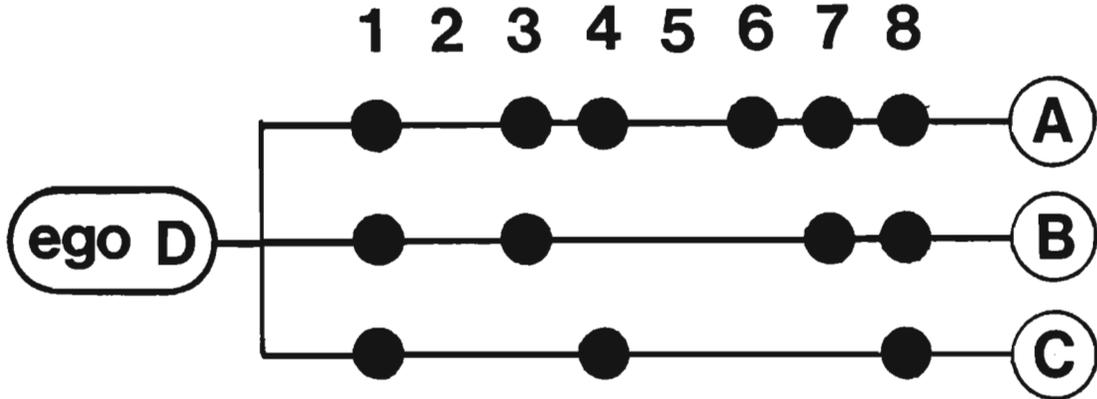
Ego B, in a situation of status marginality. Also like B he tends to buy various status-symbols which is perhaps a way of coping with his marginal social status.

Politically Ego D tends to be fairly conservative, especially in matters concerning inter-racial contact. In the last election he voted for the Nationalist Party. However, he cannot be described as someone who is highly politicized. In short, he never discusses party politics.

His recreational and leisure time activities consist mainly of occasional visits to the beach and cinema as well as wood-work and gardening. When not at work he is almost always either in the garden or his workshop. A real "handyman" Ego D will try to repair any and everything.

Ego D has a very small number of first-order contacts which are tied to him by means of friendship. We could identify only three people with whom Ego seems to have regular friendly contact. Even then the relationships seem to be less intense than those between Egos A, B, and C and their first-order contacts. In Diagram 16 the content of the links between Ego D and his three first-order contacts are specified.

In addition to friendship, Ego D shares with all three of his contacts common leisure time or recreational activities. With two first-order contacts (A and B) he shares common political views, while two of his contacts (A and C), belong to the same church as Ego D. Home language is shared only with contact A.

DIAGRAM 16EGO D : FIRST-ORDER STAR : CONTENT OF LINKSNOTES:

1 = Friendship 3 = Political views 4 = Religion
 6 = Home language 7 = Social class 8 = Recreational activities

All three of Ego D's first-order contacts know each other independently of Ego D. However, the links between his contacts do not include friendship ties. In this respect there is a significant difference between the social networks of Ego D and Ego C. Whereas none of Ego D's contacts are tied to one another in terms of friendship, all of Ego C's contacts are tied to one another by links of friendship.

The working or lower class status of Ego D is shared by two of his first-order contacts (A and B) while the third (C) has a higher class status than Ego D. Once again this observation is based on the occupational status of Ego and his direct contacts. The situation is different if we use the status of the neighbourhood as an indicator of social status. Should we do this, Ego shares with his contacts a common class status since they all live in a so-called working class suburb.

Calculating the homo-/heterogeneity, density and multiplexity of Ego's network we once again use the indexes and formulas employed earlier in this chapter.

$$\begin{aligned}
 \text{a) } \underline{\text{Homo-/Heterogeneity}} \quad H &= \frac{100 \ a}{Na} \\
 &= \frac{100 \times 13}{3 \times 6} \\
 &= \frac{1300}{18} \\
 &= \underline{\underline{72.22}}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } \underline{\text{Density}} \quad D &= \frac{200 \ a}{N(N-1)} \\
 &= \frac{200 \times 3}{3(3-1)} \\
 &= \frac{600}{6} \\
 &= \underline{\underline{100.00}}
 \end{aligned}$$

$$\begin{aligned}
 \text{c) } \underline{\text{Star Multiplexity}} \quad S_m &= \frac{100 \times ma}{N} \\
 &= \frac{100 \times 3}{3} \\
 &= \frac{300}{3} \\
 &= \underline{\underline{100.00}}
 \end{aligned}$$

2.3. Marginal Networks

2.3.1. Ego E

Ego E, a professional man, is in his late thirties, married with three children. He grew up in a fairly large town in the Cape Province, attended an Afrikaans medium school and university. Although his environment was predominantly Afrikaans he did have some contact

with English-speakers both at school and university. However, this contact tended to be rather infrequent and irregular. In addition some members of Ego E's family are almost exclusively English-speaking. This, however, had very little influence on Ego because, with the exception of the odd funeral or marriage, he had lost contact with "the English side" of his family. The nature of the contact between Ego and English-speakers, being friendly, relaxed and non-competitive, did mean that Ego never developed negative stereotypes of English-speakers.

Completing his university education in the early sixties, Ego E, leaving his home town for the first time, moved to Durban. This means that Ego has, to date, always lived in an urban environment. He has no ties whatsoever with a rural environment. Seeing himself as a "born urbanite", he has no wish to "return to the land". Given the nature of Ego's occupation it would in fact be impossible for him to move to a rural area without changing his occupation.

With a high occupational, educational and income status Ego E's social status is considered to be completely consistent. For most of his time in Durban he has also lived in a middle or upper-middle class neighbourhood.

As a student Ego E was a staunch supporter of the Nationalist Party. Overtly political, he participated in a number of protest meetings and also helped the Nationalist Party during election campaigns and on election days. Subsequent to his move to Durban, however, he became much more "liberal" or "verlig". Initially he regarded himself as a very "verligte Nationalist" hoping that the "Party could be changed

from within". After a while he became completely disillusioned with the Nationalist Party and moved much more "towards the left". Presently Ego E supports the Progressive Federal Party although he is not a "card carrying member". Because of his political views Ego became more and more alienated from the local Afrikaaner community. To an increasing extent people referred to him as "liberal" while he himself began to "feel less at home among conservative Afrikaans-speakers".

The change in political affiliation was followed by a change in religious affiliation. Ego E used to be a member of one of the three Afrikaans sister-churches. Although never overtly religious he nevertheless regarded himself as a "good Christian". The fact that the Afrikaans churches overtly support the policy of the ruling Nationalist Party increasingly challenged his conception of how "true Christians ought to behave". Consequently he became a member of one of the English Protestant churches. This, together with his political views, made Ego even more "marginal" in the Afrikaans-speaking community.

In spite of the fact that Ego is becoming more alienated from the Afrikaans-speaking community his home language is still Afrikaans and he continues to send his children to an Afrikaans medium school. It is in fact unlikely that he would ever send his children to an English medium school because he feels that, with Afrikaans as home language, they would be at a disadvantage in such a school. His belief in "mother tongue education" is, in other words, purely pragmatic. At one stage he was very active in the affairs of the school attended

by his children, but increasingly he has become less and less active, taking on the role of "just another parent". Perhaps this is yet another indication of his increasing marginality.

On the question of identity it is obvious that Ego E is not overly concerned about maintaining his identity as a pure Afrikaner. Although he sometimes describes himself as an "Afrikaner", his conception of what this entails is very different from our definition of what constitutes a pure Afrikaner. In short, he uses the term "Afrikaner" synonymously with "South African" and "Afrikaans-speaking South African", or even Afrikaans-speaker.

Although Ego was at one stage involved in one Afrikaans cultural organization this no longer applies. Once again this is consistent with his increasing marginal position.

His leisure time is spent mainly in and around the home in the company of his family. The family usually participates as a "unit" in various activities, such as going out to dinner, attending church, going to the beach or cinema or plays, and so on.

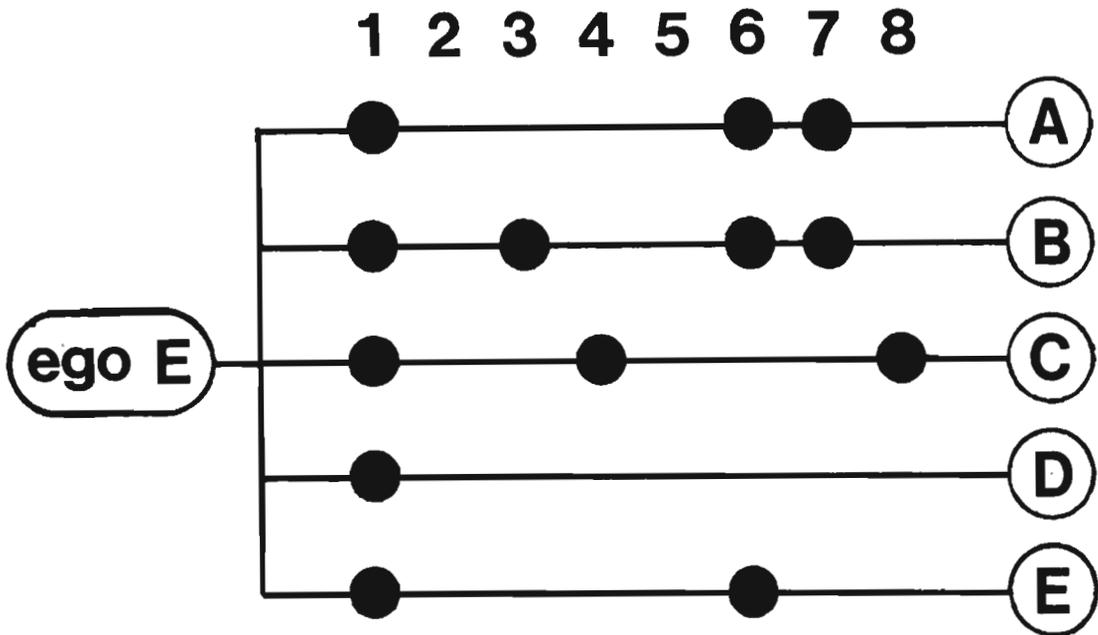
Ego E has a very small number of first-order contacts tied to him by means of, at least, friendship. Altogether we identified only five such contacts. Diagram 17 summarizes the content of the links between Ego E and his five first-order contacts.

Once again friendship, because of our selection procedure, ties Ego to all his first-order contacts. In addition, he shares common political beliefs with only one of his first-order contacts (B). Similarly his religion is only shared by one contact (C) who is also

the only contact who shares with Ego the same recreational activities. Three contacts, A, B and E, have in common with Ego the same home language, while A and B also belong to the same social class of which Ego is a member.

DIAGRAM 17

EGO E : FIRST-ORDER STAR : CONTENT OF LINKS



NOTES:

1 = Friendship 3 = Political views 4 = Religion
 6 = Home language 7 = Social class 8 = Recreational activities

Unlike the networks considered so far Ego's network contains very few linkages of the links. This becomes very clear if we look at the matrix on page 165 summarizing the information pertaining to the density of the network.

	A	B	C	D	E
A	-	1	0	0	0
B	1	-	0	0	0
C	0	0	-	1	0
D	0	0	1	-	0
E	0	0	0	0	-

Notes: 1 = link, 0 = no link

Thus we see that there are only two links between Ego's contacts, one between A and B, and one between C and D. Here only the link between A and B is based on at least friendship.

Ego E's network really cuts-across social class lines. He shares with two of his contacts a similar class position while the remaining three contacts are all members of a lower social class.

We conclude our discussion of Ego E's network by once again calculating its density, homo-/heterogeneity and multiplexity "score" using the formulas employed earlier.

$$\begin{aligned}
 \text{a) } \underline{\text{Homo-/Heterogeneity}} \quad H &= \frac{100 \ a}{Na} \\
 &= \frac{100 \times 13}{30} \\
 &= \frac{1300}{30} \\
 &= \underline{\underline{44,33}}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } \underline{\text{Density}} \quad D &= \frac{200 \text{ a}}{N(N-1)} \\
 &= \frac{200 \times 2}{20} \\
 &= \frac{400}{20} \\
 &= \underline{\underline{20.00}} \\
 \\
 \text{c) } \underline{\text{Star Multiplexity}} \quad S_m &= \frac{100 \times m_a}{N} \\
 &= \frac{100 \times 4}{5} \\
 &= \frac{400}{5} \\
 &= \underline{\underline{80.00}}
 \end{aligned}$$

2.3.2. Ego F

Ego F, a blue-collar worker, is in his mid-forties, married with three children. Of his three children one is still at school while the second one is at university and the third already married.

He was born on a farm near a small town in the North-Western Cape. Here he grew up, first attending a "plaasskool" (farm school) and later the local high school in the nearby town. He never completed high school because he failed English and consequently matric. Leaving school he was employed by the government and subsequently sent to Durban.

Ego F arrived in Durban in 1950, and with the exception of two short periods of six months each, he has always worked in Durban. It was here, in Durban, that he met and married an English-speaking girl. This he did in spite of severe criticism and opposition from his parents and other members of his family. Even today his family,

especially his father, has not accepted the position completely. The fact that his wife speaks English to their children seems to be a particularly sore point with his father. Thus his wife has never been more than a marginal member of his family.

Together with his family Ego F lives in one of Durban's working class or low status suburbs. Although he owns the house in which they live, it is a fairly small, typically "spec"⁴⁾ house situated in a very unpretentious garden. Given his low income, education and occupational status, Ego F's social status is consistent. The fact that his wife works and therefore contributes to the family income is certainly not visible in the form of an increased expenditure on status-symbols. This departure from working class behaviour, so prominent in the case of Ego B and also D, can only be explained by reference to certain middle class values. Thus at the moment it is very important to them to support their son while he attends university. The high cost of a university education plus the fact that he attends a university in the Transvaal has placed a tremendous strain on their financial resources. Whether the "extra income" will be spent on status-symbols once their son completes his university education remains to be seen. In the meantime the working class emphasis on status-symbols had to give way to a middle class concern with the importance of a good education. It is also not unlikely that Ego's wife will stop working once their son has achieved his (and their!) goal.

In spite of the fact that Ego F was born on a farm and that he grew up in a rural community, he has no desire to "return to the land". He is quite content to "spend the rest of his life in Durban". In short, he is completely urbanized.

As a teenager both Ego F and his father were active members of the Ossewabrandwag. Attending various meetings in the North-Western Cape they supported the policies of this movement. However, when the Ossewabrandwag adopted a policy of sabotage they ended their membership feeling that they could not "support acts of violence". At present Ego F is a, "not very active", supporter of the Nationalist Party. This change from being highly politicized to being "just another voter", is exceedingly interesting and perhaps indicative of Ego's marginal position. Further evidence of his present low political involvement is to be found in the fact that he was not sure of his wife's political affiliation!

Ego F is a member of the Church Council of one of the three Afrikaans sister-churches. Occupying the position of elder in the church he is involved in the government of the church. In addition each elder is assigned to a ward which he represents on the Council. It is further expected of the wife of an elder to take a leading role in the activities of the women of such a ward. Leading women's prayer meetings and being actively involved in the Womens Association is considered to be one of the more important functions of an elder's wife. These expectations are responsible for some degree of animosity between Ego's wife and other women in Ego's ward. As an English-speaker she lacks the confidence to assume a leadership position in the activities of the Womens Association. Although she is "quite prepared to work" she has arranged with someone else to assume the responsibility of presiding at meetings. This has resulted in numerous complaints and accusations of incompetence. The nett result of this is that she now feels alienated,

isolated and quite sure that "the Afrikaner community will never accept me because they see me as English". Ego's position in the church is certainly affected by this "campaign" against his wife. Although he can rely on the support of the minister, he is questioning the wisdom of continued Council membership.

As a member of the parent teachers association of the school attended by his youngest child, Ego F takes an active interest in the affairs of the school. Although it is an Afrikaans medium school Ego claims that his son uses mainly English when speaking to his friends at school. Apparently this is a fairly common phenomenon at the school in question.

In addition to his involvement in church and school activities, Ego F is also a very active member of the local Red Cross. Both he and his wife attend meetings and demonstrations at least one evening every week. At these meetings the language medium is English.

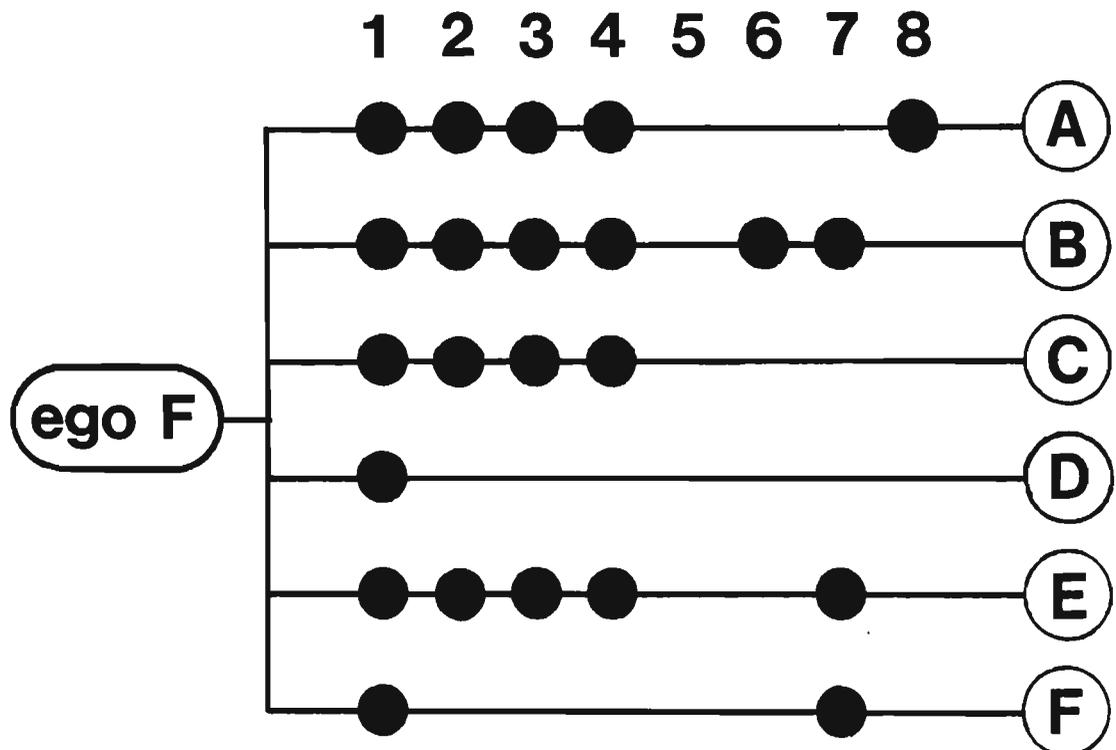
At home Ego speaks both English and Afrikaans without any particular language predominating. In a very real sense this is a truly bilingual household. Given this information it is not surprising that Ego should describe himself as a "South African" rather than an "Afrikaner".

With the exception of fishing, Ego F seems to have no other special hobbies, leisure time or recreational activities. Even the T.V. set is only switched on occasionally.

Consistent with Egos C, D and E, Ego F has only a small number of first-order contacts tied to him by means of at least friendship. We could only identify six such contacts. In Diagram 18 below we give a summary of the content of the links between Ego F and his six first-order contacts.

DIAGRAM 18

EGO F : FIRST-ORDER STAR : CONTENT OF LINKS



NOTES:

1 = Friendship 2 = School 3 = Political views
 4 = Religion 6 = Home language 7 = Social class
 8 = Recreational activities

Because of our procedure of selection Ego F is tied to all of his first-order contacts by means of friendship. With four of his contacts, viz. A, B, C and E he shares common political views, common

religious beliefs and the fact that their children attend the same Afrikaans medium school. With the exception of contact B, all of his other contacts speak either English or Afrikaans at home, never both. Belonging to the same social class as Ego F are contacts B, E and F. Of all Ego F's contacts only one, i.e. A, shares with him common recreational activities while none of his contacts are members of the Red Cross or any similar organization.

Considering the density of the above network we note that there are very few links between the contacts of F. The relevant data appear in the matrix below.

	A	B	C	D	E	F
A	-	0	1	0	0	0
B	0	-	1	1	1	0
C	1	1	-	0	1	0
D	0	1	0	-	0	0
E	0	1	1	0	-	0
F	0	0	0	0	0	-

Notes: 1 = link, 0 = no link

With only five linkages between the links: one between A and C; three between B and C, B and D, B and E; and one between C and E, we conclude that very few of Ego's contacts know each other independently of Ego F.

Because Ego F shares a similar class position with only half of his first-order contacts, we feel justified in claiming that his network cuts-across social class lines.

Applying the indexes and formulas used earlier, we conclude our discussion of Ego F's network by calculating its homo-/heterogeneity, density and star multiplexity.

$$\begin{aligned}
 \text{a) } \underline{\text{Homo-/Heterogeneity}} \quad H &= \frac{100 \ a}{N_a} \\
 &= \frac{100 \times 23}{48} \\
 &= \frac{2300}{48} \\
 &= \underline{\underline{47.92}}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } \underline{\text{Density}} \quad D &= \frac{200 \ a}{N(N-1)} \\
 &= \frac{200 \times 5}{6(5)} \\
 &= \frac{1000}{30} \\
 &= \underline{\underline{33.33}}
 \end{aligned}$$

$$\begin{aligned}
 \text{c) } \underline{\text{Star Multiplexity}} \quad S_m &= \frac{100 \times m_a}{N} \\
 &= \frac{100 \times 5}{6} \\
 &= \frac{500}{6} \\
 &= \underline{\underline{83.33}}
 \end{aligned}$$

3. CONCLUSIONS AND RESEARCH HYPOTHESES

The participant observation phase or stage, culminating in the discussion and analysis of six networks, has led to the development of a number of important insights.

It seems obvious from our preceding analysis that social class, when defined in terms of occupational or neighbourhood status, has very little effect on the social networks of egos. In fact, it is not uncommon for a social network to cut-across class lines. We must therefore conclude that neither a higher nor a lower socio-economic position increases the possibility of egos becoming anglicised. It is suggested that members of minority groups are often prepared to ignore status differences in order to promote cultural and language identification which, in turn, facilitates adaptation in a situation of culture contact. This identification could be with their own, or with the dominant culture. In the contact situation studied, Afrikaans-speaker identification with the dominant (English) culture results in either marginality or anglicisation.

As a reaction to culture contact marginality is always a matter of degree. It arranges itself on a continuum which lies between the *pure Afrikaner* and the *anglicised "Afrikaner."* Any point between these two polar types represents some degree of marginality, with the midpoint of the continuum obviously representing the greatest degree of marginality. Moving away from the polar types towards the midpoint on the continuum represents an increase in marginality while any movement towards a polar type, and away from the midpoint, obviously represents a decrease in marginality.

Our analysis of the homo-/heterogeneity, density and star multiplexity of the above six networks resulted in an awareness of important differences between the social networks of "pure" and "anglicised" egos on the one hand and "marginal" egos on the other

hand. This information is summarized in Table 11 below.

TABLE 11
THREE CHARACTERISTICS OF PURE, ANGLICISED
AND MARGINAL SOCIAL NETWORKS

CHARACTERISTICS	S O C I A L N E T W O R K S					
	PURE EGOS		ANGLICISED EGOS		MARGINAL EGOS	
	A	B	C	D	E	F
Homo-/Heterogeneity	77.38	90.00	83.33	72.22	44.33	47.92
Density	100.00	85.72	100.00	100.00	20.00	33.33
Multiplexity	100.00	100.00	100.00	100.00	80.00	83.33

The information contained in Table 11, above, suggests three hypotheses. We first list and then discuss each hypothesis. One, *as the marginality of an ego increases the heterogeneity of his social network increases.* In practice this means that the social networks of pure and anglicised egos are homogeneous while the networks of marginal egos are heterogeneous. Two, *as the marginality of an ego increases the density of his network decreases.* Thus we have an inverse relationship between marginality and density. Pure and anglicised egos will have high density networks whereas marginal egos will exhibit low density networks. Three, *as the marginality of an ego increases the multiplexity of the links of his social network decreases.* Once again we have an inverse relationship. The hypothesis suggests that the social networks of marginal egos are, in

comparison with the networks of pure and anglicised egos, more likely to contain single-stranded or uniplex links.

Our preceding analysis also suggests, albeit only very tentatively, that the first-order friendship networks of pure egos are larger than those of their marginal or anglicised counterparts. In the present study the verification of this hypothesis will be hampered by the restrictions placed on the number of first-order contacts to be included in the analysis of a given social network. Furthermore, should both this hypothesis and the one concerning the homo-/heterogeneity of networks be confirmed, the researcher and theorist might be faced with a conceptual dilemma. Obviously the dilemma might be the result of restricting our analysis to a limited number of first-order contacts and/or the prerequisite that ego must be tied to his contacts by at least friendship. Assuming that this is not the case, however, then the inclusion of both first-order star size and homo-/heterogeneity as indicators of *range* as advocated by some researchers (see Chapter Two: p.88) means that our two hypotheses contradict one another in two instances while they are consistent with each other in a third case. The contradiction applies to pure and marginal egos. Given the two hypotheses we see that the pure egos have a small range network because of its homogeneity, but a large range network given its first-order star size. Similarly marginal egos have a large range network given its heterogeneity but a small range because of the size of its first-order stars. Conversely, given the small range of anglicised networks both in terms of homogeneity and the size of their first-order stars, our hypotheses are consistent. If this dilemma is not due to the

restrictions imposed on first-order contacts then it follows that size and homo-/heterogeneity are two very different dimensions of social networks that cannot be subsumed under the term "range". In such an event it is suggested that we discard the concept "range" in favour of the term homo- or heterogeneity of the network while we retain the concept of the *size* of ego's first-order star as a separate characteristic of social networks. This is in fact the procedure adopted in the present study.

Not contained in the analysis of the six networks but nevertheless arising out of the data collected during the participant observation stage of the study are two further important insights relating to the durability of networks and the frequency of contact between egos and their first-order contacts. First, with reference to the durability of social networks, the data suggests that pure networks are more durable than either marginal or anglicised networks. Anglicised networks are, in turn, more durable than marginal networks. In practice this means that marginal egos have, relative to pure and anglicised egos, a larger proportion of "newly acquired friends". Similarly, anglicised egos have, relative to pure egos, a larger proportion of new friends. In fact, the networks of pure egos contain very few "new" first-order contacts based on friendship.

Turning next to the frequency of contact between egos and their first-order contacts we stress the fact that our conclusion and resulting hypothesis is based on very limited and superficial evidence. This is due, at least in part, to the inadequacy of participant observation as a means of gathering this kind of data

from a geographically widely scattered universe. However, the available evidence suggests that the frequency of contact between pure egos and their first-order contacts are marginally higher than the frequency of contact between either marginal or anglicised egos and their first-order contacts.

Another interesting phenomenon is the political conservatism of all but one of the egos included in our analysis. It is especially noteworthy that the two anglicised egos should continue their support for the Nationalist Party in spite of the fact that they are anglicised. This discovery is certainly a contradiction of everyday beliefs. That "anglicised 'Afrikaners' are also liberal" is a commonly accepted "fact" in the Afrikaans-speaking community. The fact that many English-speakers also support the Nationalist Party seems to have no power to dispel this belief. In short, Afrikaans-speakers are quite happy to accept these contradictory statements! These observations lead to the conclusion that a change in political views should not be used as an indicator of anglicisation. For anglicisation can occur without a concomitant change in political beliefs and *vice versa*.

Also noteworthy is the apparent absence of a relationship between the period of exposure to the contact situation and the likelihood of becoming either anglicised or even marginal. The fact that both egos A and B have been exposed to the contact situation for a fairly long period of time (Ego A for more than 15 years and Ego B since birth) without losing their pure identities, supports this conclusion. The popular belief that "a prolonged period of

contact inevitably results in a loss of identity" is therefore without foundation.

No clear-cut picture emerged from a comparison of the origin of egos with their respective reactions to culture contact. With reference to origin we distinguish between those egos with a predominantly rural background and those egos with a predominantly urban background. Egos A and F belong to the first category while B, C, D and E belong to the latter category. We see that our two egos with a rural background, A and F, react very differently to culture contact. Similarly, in spite of their common urban origin, Ego B is pure, C and D are anglicised and E is marginal. This seems to suggest that the origin of ego has no bearing on his reaction to culture contact. However, care must be taken with this "obvious" conclusion seeing that both anglicised egos, C and D, share a common urban background. That an urban background might increase the likelihood of an ego adopting anglicisation as a mode of adaptation cannot be discounted. We are of the opinion, however, that the urban background provided the setting in which contact between English and Afrikaans-speaking actors took place and that it is this contact, rather than the urban setting *per se*, which accounts for their reaction to culture contact. The fact that Ego B, also an urbanite, has maintained his "purity" is evidence in support of this conclusion.

In the introductory chapter attention was drawn to the fact that the exact nature of the relationship between the modes of adaptation or patterns of reaction and the contact situation, i.e. Durban, was still unclear. It was also suggested that two kinds of

relationships would be possible. First, it is possible for the actor to bring to the situation a given mode of adaptation. Here adopting the mode preceded his/her entry into the situation. Alternatively, the actor may adopt a given mode of adaptation in response to the contact situation. In short, the relationship between the mode of adaptation and the contact situation is likely to be a coextensive relationship. The data collected support this conclusion. Thus both Egos A and C brought to the contact situation their respective modes of adaptation. Ego A entered the situation as a pure Afrikaner and had maintained his purity while Ego C who became anglicised before moving to Durban is still anglicised. Egos B, D, E and F adopted their respective modes of adaptation in response to the contact situation. Of these four, two, viz. E and F, entered the situation as pure Afrikaners becoming marginal only *after* entry. Thus a change of mode occurred in response to the contact situation. Ego D who also experienced a change in his mode of adaptation has lived in Durban all of his life. Initially a pure Afrikaner he later became completely anglicised in response to the contact situation. Of the above-mentioned four egos it is only B, who has also lived in Durban since birth, who has not experienced a change of mode of adaptation.

4. SUMMARY

Our research data suggest the following hypotheses:

1. Neither a high nor a low socio-economic position increases the likelihood of egos becoming anglicised.

2. As the marginality of an ego increases the heterogeneity of his social network increases.
3. As the marginality of an ego increases the density of his network decreases.
4. As the marginality of an ego increases the multiplexity of the links of his social network decreases.
5. The first-order friendship networks of pure egos are larger than those of their marginal or anglicised counterparts.
6. (a) Pure networks are more durable than either marginal or anglicised networks.
(b) Anglicised networks are more durable than marginal networks.
7. The frequency of contact between pure egos and their first-order contacts is slightly higher than the frequency of contact between either marginal or anglicised egos and their first-order contacts.
8. Anglicisation can occur without a concomitant change in political beliefs.
9. There is no relationship between the period of exposure to the contact situation and adopting any given mode of adaptation.
10. The urban or rural origins of egos have no direct bearing on their reactions to culture contact.
11. That a coextensive relationship exists between the modes of adaptation or patterns of reaction and the contact situation.

In the next chapter we again examine these hypotheses in the light of additional evidence gathered by means of interviewing a sample of respondents living in Durban.

NOTES

1. Cultural organizations revolve round Afrikaner cultural values. In short, these associations are concerned with the maintenance of Afrikaner culture, sentiment and identity. Typical organizations, all being branches of national ones, include: Rapportryers, F.A.K. (Federation of Afrikaans Cultural Organizations) and the A.T.K.V. (Afrikaans Language and Cultural Association).
2. The abbreviation H.N.P. stands for "Herstigte Nasionale Party" (i.e. Reconstituted Nationalist Party).
3. Contacts or first-order contacts refer to the eight people selected by the researcher.
4. "Spec" is derived from the word speculation indicating here a house erected by a builder, without being instructed to do so by a client, hoping to sell it at a profit. It is a practice commonly adopted by, especially, small builders when they have no definite contracts to execute.

CHAPTER FIVEPRESENTATION AND ANALYSIS OF DATA COLLECTED BY MEANS
OF INTERVIEW SCHEDULES AND DEPTH INTERVIEWING1. INTRODUCTION

Given the data trends identified in Chapter Four the question of whether these trends merely reflect the participant observer's limited focus, in that he could only observe in certain situations, under certain conditions, at certain times, becomes relevant. In short, did the observer's situation-specificity obscure other data which would have resulted in perhaps the opposite conclusions? The possibility of this being the case is always present in a highly complex, modern, industrial society where it is simply impossible to observe more than a mere fraction of a person's behaviour over a given period of time. A wide geographical distribution, the privacy of a person's home or place of work are only some of the factors contributing to an ever increasing number of situations to which a participant observer has no access.

To determine the influence of the observer's situation-specificity on the observed trends, but also in the interest of greater reliability and validity, it was decided to re-examine the hypotheses formulated in Chapter Four in the light of data collected by means of depth interviewing as well as interviews conducted within the framework of a highly structured interview schedule.

A total of 45 interviews were conducted over a period of approximately eight months. The time required to complete an interview ranged from not less than one hour to five hours in one instance, with an average of two hours being the norm.

The first 20-30 minutes of each interview was used to complete the short interview schedule. This schedule contained no embarrassing or potentially threatening questions and consequently played an important role in "paving the way" for the depth interview that followed.

The rapport and trust established between researcher and respondent as well as the relaxed atmosphere in which the depth interviews were conducted contributed much to the willingness of interviewees to talk both freely and in great detail about their social networks, lives and also experiences in the contact situation. In some cases terminating the interview proved to be fairly problematic due to the involvement of the respondent in what was happening. To make a "diplomatic exit" was not always easy! On one such occasion another appointment (not faked!) and a promise to visit the respondent again was the only way to achieve a position that left the respondent feeling satisfied. Leaving respondents with a sense of well-being was of great importance to the researcher. It is for this reason that the researcher always stressed the fact that interviewees were doing him a personal favour. This, we believe, contributed to their sense of well-being.

Determining the reliability and validity of data collected by means of interviewing is never an easy task. The present study is no exception to this rule. At best the interviewer can look for

clues which will, if correctly interpreted, give him some indication of the trustworthiness of his respondents. This, in turn, must be used to gauge the validity and reliability of data collected. In the study under consideration two criteria, or clues, were used to evaluate the trustworthiness of respondents and consequently the reliability and validity of information supplied by them. First, every person contacted by the researcher agreed without hesitation, to participate in the research. This most probably meant that they had nothing to hide or fear from either the researcher personally or the study itself. Any personal gains resulting from participation can also be ruled out. There is, therefore, no reason whatsoever for questioning the honesty and integrity of the respondents. This greatly increases our trust in the reliability and validity of the information collected. Secondly, respondents were often very outspoken in their views and criticisms of other people. Perhaps even more significant is the fact that respondents were not selective in their criticism and evaluation of others. For example, "pure Afrikaners" were as critical of fellow pure Afrikaners as they were of those whom they considered to be anglicised. This lack of selectivity accompanied by their willingness to make value judgements in the presence of the interviewer is a good measure of the extent to which the interviewer-interviewee relationship was based on mutual trust. Our confidence in the reliability and validity of the data collected can only increase in the light of this knowledge.

It does not follow from the above that responses were accepted at face value. On four occasions the researcher had to face the

possibility that respondents were trying to impress him. In each instance the respondent reported to have either a very large friendship network and/or to be very central or critical to their networks by insisting that friends could only establish contact with one another via the respondent. The fact that so many respondents were very apologetic about their "small circle of friends" sensitized the researcher to the possibility that reporting a "larger than real" social network could be interpreted as a way to enhance your status in the eyes of the interviewer. The possibility that this happened in two or three cases is very real. It must be stressed, however, that we have no concrete evidence to support this point of view, in short, it is a "feeling" or "impression" and nothing more.

On balance we are confident that the data collected are sufficiently reliable and valid to allow for a re-examination of hypotheses developed earlier. Before we proceed with the proposed re-examination, however, it is necessary to describe the characteristics of our sample. This we do in section 2 below.

2. THE RESPONDENTS

The sample consisted of 45 respondents with an equal number, i.e. 15, in each respondent-category. In order to examine the relationship between sex, and its influence on, the data trends identified earlier, each category included both male and female respondents. Thus, looking at Table 12 on page 189, we see that the 15 pure Afrikaners included in our sample consisted of ten male and five female respondents, giving us a ratio of 2:1 for males and females respectively. The 15 informants considered to be anglicised

included eight male and seven female respondents. Similarly, eight male and seven female informants were included in our category of marginal egos.

TABLE 12
RESPONDENTS BY CATEGORY AND SEX

SEX	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Male	10	8	8	26
Female	5	7	7	19
Total	15	15	15	45

Turning next to the place of birth of our respondents (Table 13) we distinguish between those born in an urban area and those born in a rural area by respondent-category. With seven urban born pure Afrikaners, eight urban born anglicised egos and seven urban born marginal egos we have an almost equal distribution of urban born and rural born informants not only within each category but also between categories.

The situation in Table 13 where we have an (almost) equal distribution between urban born and rural born changes quite dramatically when we focus on where respondents grew up. From the data contained in Table 14 it is clear that approximately two-thirds of all respondents in each of the three respondent-categories grew up in an urban area.

TABLE 13
RESPONDENTS BY CATEGORY AND PLACE OF BIRTH

PLACE OF BIRTH	RESPONDENT CATEGORY			GRAND TOTAL
	PURE	ANGLICISED	MARGINAL	
Urban	7	8	7	22
Rural	8	7	8	23
Total	15	15	15	45

TABLE 14
RESPONDENTS BY CATEGORY AND THE AREA WHERE THEY GREW UP

AREA	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Urban	9	11	10	30
Rural	6	4	5	15
Total	15	15	15	45

Of the 30 respondents growing up in an urban area almost half (or 14) grew up in the contact situation — Durban. Thus seven of the 11 anglicised egos, three of the ten marginal egos and four of the nine pure Afrikaners growing up in an urban area grew up in Durban.

The significance of the above information plus the data contained in Tables 13 and 14 will be considered when we re-examine our hypotheses in the next section.

Table 15 contains information on the religious affiliation of our respondents.

TABLE 15
RESPONDENTS BY CATEGORY AND RELIGIOUS AFFILIATION

RELIGION	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Afrikaans Protestant	15	1	10	26
English Protestant	0	13	5	18
Other	0	1	0	1
Total	15	15	15	45

Of the 15 pure Afrikaners the great majority (13 out of 15) are members of the Dutch Reformed Church while the remaining two are members of the Reformed (Gereformeerde) Church. Thus all 15 are members of two of the three Afrikaans sister Churches. Conversely, the great majority of anglicised respondents (13 out of 15) are members of an English Protestant Church with only one being a member of an Afrikaans Protestant Church and one a member of the Roman Catholic Church. Two-thirds (10 of 15) of all marginal egos are members of one of the three Afrikaans sister Churches while the remaining third (5 of 15) are members of an English Protestant Church.

It is interesting to note that all respondents claimed that they "belong to a Church" although some did indicate that they do

not attend Church meetings, including services, on a regular basis. This observation does not apply, however, to respondents considered to be pure Afrikaners in the present study. The latter group are overtly religious in that they play a prominent role in the Church to which they belong: the men are often members of the deaconate while the women invariably belong to the Women's Association of the Church.

Analysing the relationship between membership of a given respondent-category and membership of cultural and/or social associations, organizations and/or clubs resulted in a cross-tabulation (Table 16 below) containing fascinating information.

TABLE 16
RESPONDENTS BY CATEGORY AND MEMBERSHIP OF CULTURAL
AND/OR SOCIAL ORGANIZATIONS OR CLUBS

ORGANIZATION OR CLUB	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Cultural	13	2	4	19
Social	0	9	3	12
Both	1	0	0	1
None	1	4	8	13
Total	15	15	15	45

An overwhelming majority of pure Afrikaners (14 out of 15) belong to one or more cultural organizations.¹⁾ These organizations

include the Rapportryers, Kajuitraad, F.A.K., Durbanse Kunswedstryde Kommittee, and so on. Of the 14 respondents involved in cultural organizations only one is, in addition, also a member of a social club. Equally significant is the fact that most of these respondents (12 out of 14) are members of more than one cultural organization, some belonging to as many as seven different organizations. At the time of the study only one pure Afrikaner did not belong to either a cultural or a social organization or club. However, prior to the study he was a member of a youth cultural organization. This active and enthusiastic involvement in cultural activities must surely be one of the most distinguishing characteristics of the pure Afrikaner.

Anglicized egos, unlike their pure Afrikaner counterparts, tend to be members of social, mainly sports, clubs. Almost two-thirds (or 9 out of 15) are active members of at least one such club. However it is extremely rare for an anglicised ego to be a member of more than one club at any given time. This signifies yet another important difference between pure and anglicised egos. In addition to the nine anglicised egos belonging to social clubs only two are members of cultural organizations while the remaining four egos do not belong to any cultural and/or social organization or club.

If pure Afrikaners are characterized by their involvement in cultural activities and anglicised egos by their involvement in social activities then marginal egos are characterized by the fact that more than half of them (or 8 out of 15) do not belong to any cultural or social organization or club. Of the seven who are involved in cultural or social activities four are members of cultural

organizations while three belong to social clubs. Once again, as in the case of anglicised egos, their involvement is restricted to only one such organization or club at any given time.

Cultural involvement, social involvement and the lack of specific involvement are among the most striking characteristics of, respectively, pure Afrikaners, anglicised- and marginal egos.

A further indication of, especially, the pure Afrikaners' active involvement in the activities of the organizations of which they are members can be inferred from the large number of pure Afrikaner egos who are office bearers in the organizations to which they belong. We see in Table 17 that the great majority of pure Afrikaners (13 out of 15) occupy such positions in the organizations to which they belong. In contrast only two egos in each of the other respondent-categories viz. anglicised and marginal, occupy similar positions in the organizations of which they are members.

TABLE 17
RESPONDENTS BY CATEGORY AND OFFICE BEARERS

OFFICE BEARER	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Yes	13	2	2	17
No	2	13	13	28
Total	15	15	15	45

Not only is it true that a majority of pure Afrikaner respondents belong to more than one cultural organization but it is also significant that they often occupy positions of authority in more than one of these organizations.

In Table 18 we report the political party affiliation of the respondents by respondent-category. The most striking feature of the information contained in the relevant table concerns the overwhelming support for the ruling Nationalist Party. Of all the respondents only five, two anglicised and three marginal egos, did not vote for the Nationalist Party during the previous election. Among pure Afrikaner respondents this support for the ruling party goes even further in that two-thirds (10 of the 15) are card carrying members of the Party. Of the two anglicised egos not supporting the Nationalist Party one can be described as apolitical while the other one voted for the New Republic Party at the last election. However, the latter respondent did so only because she "believes in a strong Opposition" and would change her vote to one for the Nationalist Party should there be a possibility that they would lose an election. The marginal egos not supporting the Nationalist Party (3 out of 15) includes one who supports the Progressive Reform Party, one who supports the Reconstituted Nationalist Party and one who supports no political party but who votes for "the best man irrespective of the party to which he belongs". Considering the five non-Nationalist Party supporters it is interesting to note the complete absence of a trend indicating support for a political party either to the right or to the left of the present ruling party.

TABLE 18
RESPONDENTS BY CATEGORY AND POLITICAL
PARTY AFFILIATION

POLITICAL PARTY	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Nationalist Party	15	13	12	40
New Republic Party	0	1	0	1
Reconstituted Nationalist Party	0	0	1	1
Progressive Reform Party	0	0	1	1
No Party	0	1	1	2
Total	15	15	15	45

In section three of the present chapter we consider, once again, the significance of the above findings.

The language medium, i.e. English or Afrikaans, of the school or schools to which people send their children is often an indicator of the "identity" which they hope to preserve or create for themselves and/or their children. However, the link between language medium of school and identity is not readily visible nor does it exist in all cases. This, plus the fact that people may also send their children to a given school for a variety of other reasons, including practical considerations, represents a serious problem for the researcher. To

overcome this problem the present study relied on depth interviewing to uncover or expose possible hidden links between identity on the one hand and the language medium of the school on the other.

At the time of the study nine respondents (Table 19) — three pure Afrikaners, four anglicised egos and two marginal egos — had no children of school-going age. Focussing, first, on pure Afrikaner respondents with children of school-going age we see that their children all attend an Afrikaans medium school. It is also interesting to note that, in spite of the small sample a total of six different schools were involved. Although practical and other considerations, for instance, the location of a school or its "status" or the availability of certain subjects (for example music) and so on, may explain why a given individual sends his children to a *specific* school, it is equally true that all 12 pure Afrikaners send their children to an *Afrikaans medium* school because they want to preserve or maintain a particular cultural identity. In maintaining this identity the school is expected to play a major role. For an Afrikaans-speaker to send his children to an English medium school is to run the risk of becoming an outcast.

Whereas pure Afrikaners send their children to Afrikaans medium schools in order to maintain a given identity their anglicised counterparts send their children to English medium schools at least in part to create and establish for themselves and their children a new identity or sense of belonging. This is true for the great majority (9 out of 11) of anglicised respondents in our sample. The children of the remaining two respondents attend Afrikaans medium schools. In both cases the reason given for this is the "lack of discipline at

English schools". According to one respondent "You only have to look at the way children treat adults to know whether they attend an English or Afrikaans school". It is interesting to note that many respondents — pure, anglicised and marginal — commented on what they considered to be the "lack of discipline" at English medium schools and the "better manners of Afrikaans-speaking children".

TABLE 19
RESPONDENTS BY CATEGORY AND LANGUAGE MEDIUM
OF SCHOOL ATTENDED BY CHILDREN

LANGUAGE MEDIUM OF SCHOOL	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Afrikaans	12	2	7	21
English	0	9	6	15
Not Applicable	3	4	2	9
Total	15	15	15	45

Marginal egos tend to be much more pragmatic when it comes to sending their children to school. This is reflected in the fact that our marginal respondents show no clear-cut preference for either Afrikaans or English medium schools. While the children of seven respondents go to Afrikaans medium schools almost the same number (six) send their children to English medium schools. Among this category of respondents the location of the school, the importance of learning English given the fact that Durban is predominantly English,

the friends of their children being either English- or Afrikaans-speaking and a host of other reasons, mostly pragmatic, explain why they send their children to one school rather than another.

In response to the question "How do you identify yourself?" (Table 20) an overwhelming majority of pure Afrikaners (14) described themselves as "Afrikaners" while an equally large majority of anglicised egos (13) and marginal egos (12) referred to themselves as "South Africans". Only one pure Afrikaner saw herself as a South African with three marginal egos identifying themselves as Afrikaners and only one anglicised ego describing himself as an English-speaking South African. No one described himself as "English" or as an Afrikaans-speaking South African.

TABLE 20
RESPONDENTS BY CATEGORY AND IDENTITY

IDENTITY	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Afrikaner	14	0	3	17
South African	1	14	12	27
English-speaking South African	0	1	0	1
Total	15	15	15	45

Turning next to the social class position of respondents we distinguish between working-, middle-, and upper class informants.

Three factors — income, educational qualifications and occupation — commonly assumed to be related to social class position were used as indicators to determine the class position of a respondent. Each indicator formed the basis for a three-point scale; the points being referred to as *Low*, *Middle* and *High*. The resulting three scales were the following:

	<u>INCOME</u>	<u>EDUCATION</u>	<u>OCCUPATION</u>
High	R1200+ per month	Master's degree and higher	Score 81-100
Middle	R600-199 per month	Matric- Honours degree	Score 61-80
Low	R0-599 per month	Less than Matric	Score 0-60

To arrive at the occupational status scores referred to above the occupational status scale designed by Close (Close 1968) was used.

An individual's class position was determined as follows: respondents ranking high, middle or low on at least two of the three scales were classified as upper-, middle- or working class respectively. The class position of an individual occupying three different positions, i.e. high, middle and low, on the three scales was recorded as middle class.

The same indicators were also used to determine whether or not an informant's social status was consistent, marginal or inconsistent. A consistent social status implied that an individual occupies the same position, i.e. high or middle or low, on all three ladders of evaluation. It was considered to be marginal in those cases where respondents occupy the same position on two scales but a different position on the third

scale. Finally, an inconsistent social status was recorded in those cases where respondents occupy different positions on all three scales.

It is clear from the information contained in Table 21 that most respondents (30 out of 45 or 75%) were considered to be members of the middle class. A total of ten respondents are members of the working class while the remaining five informants were classified as upper class.

A comparison of respondent-categories with social class position yields the following information: two-thirds (ten) of all pure Afrikaner respondents are members of the middle class while almost a third (four) has a working class status and one an upper class status. Among anglicised egos 12 or four in every five are classified as middle class, one as upper class and two are considered to be members of the working class. Approximately half (8 out of 15) of all marginal respondents occupies a middle class position while almost a third (four) are classified as working class. The remaining three marginal respondents are members of the upper class.

Information pertaining to the consistency/inconsistency of the social status of respondents appears in Table 22. Considering this information we see that the social status of a large majority of respondents (37 out of 45) are consistent while the social status of eight informants are considered to be marginal. Our sample included no respondent with an inconsistent status. Also evident is the fact that respondents with a marginal social status are almost equally distributed among our three respondent-categories. Thus three pure Afrikaners, two anglicised- and three marginal egos are classified as having marginal social statuses.

TABLE 21
RESPONDENTS BY CATEGORY AND SOCIAL CLASS

SOCIAL CLASS	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Upper	1	1	3	5
Middle	10	12	8	30
Working	4	2	4	10
Total	15	15	15	45

TABLE 22
RESPONDENTS BY CATEGORY AND STATUS
CONSISTENCY/INCONSISTENCY

STATUS CONSISTENCY/ INCONSISTENCY	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Consistent	12	13	12	37
Marginal	3	2	3	8
Inconsistent	0	0	0	0
Total	15	15	15	45

The significance of the data on social class and social status consistency/inconsistency will be examined in the next section where we re-examine the hypotheses developed in Chapter Four of this report.

Respondents were also required to list chronologically, beginning with their place of birth, all the places — i.e. cities, towns and/or districts — in which they resided prior to settling in Durban. This question had a dual purpose. First, it was considered important to establish whether or not there are definite, identifiable migration patterns. Secondly, this information was important in order to enable the researcher to determine to what extent respondents were geographically mobile. With reference to migration patterns there is no evidence to suggest that definite, discernible trends exist. Similarly the evidence with regard to geographical mobility tends to be rather inconclusive. A simple enumeration of the number of places where informants lived prior to settling in Durban suggests that pure Afrikaners are more mobile than their anglicised and marginal counterparts. The relevant data are as follows: Whereas pure Afrikaner respondents resided in a total of 64 places (average of 4,4 per respondent) before settling in Durban, anglicised and marginal respondents lived in, respectively, 36 ($\bar{x} = 2,4$) and 37 ($\bar{x} = 2,5$) places prior to settling in Durban. However, distinguishing between three magnitudes of mobility — low, medium and high — and cross-tabulating it with our three respondent-categories (Table 23) produces no clear-cut evidence in support of this conclusion.²⁾

Considering the data contained in Table 23 it is quite clear that pure Afrikaners are neither more nor less mobile than marginal egos. Similarly, although both pure Afrikaners (seven) and marginal egos (six) are, in comparison with anglicised egos (four), more likely to be *highly* mobile the position is reversed when we focus on those

respondents who were medially mobile. Also significant is the fact that Cramer's V^3) is only 0,136, showing there is very little association between geographical mobility and respondent-category. In the light of the preceding discussion we must assume that no relationship or link exists between mobility on the one hand and being either pure, anglicised or marginal on the other.

TABLE 23
RESPONDENTS BY CATEGORY AND GEOGRAPHICAL MOBILITY

GEOGRAPHICAL MOBILITY	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
High	7	4	6	17
Medium	3	5	3	11
Low	5	6	6	17
Total	15	15	15	45

In Table 24 we report the language most often used in the home where the spouse of the respondent grew up. Only two informants, one anglicised the other marginal, were not married at the time of the study and are consequently not included in the following analysis.

An overwhelming majority (14 out of 15) of pure Afrikaners married someone who grew up in a home where *Afrikaans* was the language most often used. Only one respondent in this category, who married someone who grew up in an English household, does not conform to this dominant trend.

TABLE 24

RESPONDENTS BY CATEGORY AND LANGUAGE MOST
OFTEN USED IN THE HOME WHERE THE SPOUSE
OF THE RESPONDENT GREW UP

LANGUAGE	RESPONDENT CATEGORY			TOTAL
	PURE	ANGLICISED	MARGINAL	
Afrikaans	14	1	10	25
English	1	13	4	18
Not Applicable	0	1	1	2
Total	15	15	15	45

Among anglicised respondents a large majority (13 out of 14) are married to someone who grew up in a home where English was most often used while only one married someone who grew up in an Afrikaans household.

Of the 14 married marginal egos ten or more than two-thirds married someone who grew up in an Afrikaans household while four or almost one-third married someone who grew up in a home where English was most often used.

The question of home language will again be relevant when we examine, in the next chapter, first, the incidence and secondly, the relationship between, so-called "mixed" or cross-cultural marriages and the process of anglicisation.

At the time of the study all respondents, except one anglicised informant, had been exposed to the contact situation for more than

five years. In the one instance where this did not apply exposure has, nevertheless, been only just short of five years, i.e. 57 months.

From the data collected there emerge a picture of the pure Afrikaner as a man (or woman) who speaks only Afrikaans at home and who is most likely to marry a fellow pure Afrikaner. Marrying an "andertalige", i.e. someone who speaks a different language, although frowned upon, is acceptable on condition that there is an overt attempt to Afrikanerize the spouse. He sees, describes and is proud to identify himself as an Afrikaner. "Afrikanerskap", i.e. being an Afrikaner, means much more than speaking Afrikaans, it is, above all, a world view, a set of beliefs which find expression in certain actions.

The pure Afrikaner, a regular churchgoer, is most likely to be a member of the Dutch Reformed Church. However, to belong to one of the two sister churches does not affect your status or standing in the community. Religion plays an important role in the lives of pure Afrikaners. Moreover, it is important to be overtly religious. Thus meetings and functions, also secular ones, are invariably opened with a reading from the Bible and a prayer. Even at a fete nothing will be sold before "skriflesing en gebed", i.e. reading of the lesson and prayer. At one stage or another of their lives most pure Afrikaner males will serve, either as deacons or elders, on the Church Council of the church to which they belong. Their female counterparts invariably belong to the "Vrouehulpdiens", i.e. Women's Association of the Church.

The child or children of a pure Afrikaner attend an Afrikaans-medium school. The latter, in partnership with the church and the family, is expected to instil in the child the values and beliefs of

the "true" Afrikaner. Hence the emphasis on Christian National Education.

Pure Afrikaners typically support the ruling Nationalist Party. In fact, they are often "card carrying" members of the local branch of the Party. While a measure of sympathy exists for those "to the right" of the Party, the same cannot be said for those "to the left" of the Party. They are also inclined to equate the national interest with the Nationalist Party interest. In short, what is good for the Party is assumed to be good for the country. Perhaps this explains the lack of concern among pure Afrikaners in Durban when it became known that the Government, using taxpayers' money, financed a daily newspaper known to be sympathetic towards the ruling party.

Given the pure Afrikaner's involvement in cultural organizations we may justifiably describe him as a "cultural being". Numerous Afrikaans cultural organizations provide him with "opportunities to serve his people", a task which he gladly accepts. Obviously the supreme achievement and recognition is to be one of the elect who is asked to join the Afrikaner Broederbond. It is, also, almost inevitable that a pure Afrikaner will be an office-bearer in at least one of the many organizations to which he, customarily, belongs.

It is common for pure Afrikaners to have a consistent social status irrespective of whether that status is low, medium or high.

In addition to the above characteristics which are typical of pure Afrikaners in Durban, there are other things which, contrary to popular belief, do not apply to him. First, he is certainly not

confined to a particular social class or stratum. In short, there are working-, middle- and upper class pure Afrikaners. Secondly, he is not a country bumpkin. It is true that many are born in rural areas and that many grow up on farms and in small towns, but an equally large number are urban born and grow up in large urban areas. Thirdly, the pure Afrikaner is also no more or no less mobile, geographically speaking, than his fellow South Africans. Finally, although some may have had very little contact with English-speakers and their culture, others have had extensive and systematic contact with English culture.

Also emerging from the data is a picture of the typical anglicised ego. Speaking English at home and marrying someone who grew up in a home where English was most often used are characteristic of anglicised egos. It is not unusual for an anglicised ego to report an inability either to speak Afrikaans or, alternatively, to speak it well.

Unlike his pure Afrikaner counterpart he sees himself first and foremost as a South African. Thus he claims to be loyal to South Africa rather than to a specific language or cultural group within South Africa. In addition, anglicised egos do not share with pure Afrikaners the same emotional and overt concern with identity.

The typical anglicised ego tends to be an adherent, rather than a member, of an English Protestant Church.⁴⁾ Their attendance at Sunday worship is more often than not infrequent and irregular. In other words, they are not overtly religious.

As a rule the children of anglicised egos attend English medium schools. Although the question of maintaining or creating an identity

plays a part in the decision to send their children to English medium schools they do tend to be much more pragmatic than pure Afrikaners in their choice of a particular school. Practical rather than cultural and/or ideological factors have a more direct bearing on decisions to enrol a child at a given school.

Anglicised egos are likely to support the ruling Nationalist Party. This is one of the more important links with the past that has not been severed in the process of becoming anglicised.

Whereas pure Afrikaners belong to cultural organizations, anglicised egos are members of social clubs. This emphasis on social rather than cultural activities is indeed a distinguishing characteristic of anglicised egos. They do not, however, get involved at the organizational level, in the activities of the clubs to which they belong. In short, they are much more likely to be "ordinary" members rather than office-bearers.

The social status of an anglicised ego is usually consistent. This is a characteristic which he shares with his pure Afrikaner counterpart.

Once again there are also things which, contrary to popular belief, do not apply to anglicised egos living in Durban. One, they are not restricted to a particular social class. Once again, like in the case of pure Afrikaners, there are working-, middle- and upper class anglicised egos. Two, all anglicised egos are not urban born nor did they all grow up in urban areas. Finally, they are neither more nor less geographically mobile than pure Afrikaners.

Turning next to marginal egos, we note that there is no, nor can there ever be, a single description of what a marginal ego looks like. He (or she) occupies a position somewhere on a continuum between the pure Afrikaner and the completely anglicised ego. Moving towards the midpoint of the continuum represents an increase in marginality: obviously movement towards either polar-type signifies a decrease in marginality. Within the marginal category any one respondent may, therefore, be to a greater or lesser extent a marginal Afrikaner or a marginal anglicised ego. Here our focus is on those egos whose home language is still Afrikaans.

Given the fact that there exists a continuum, the decision to use certain cut-off points indicating pure-, marginal-, and anglicised egos is purely for heuristic purposes. Strictly speaking people arrange themselves on a continuum ranging from the one extreme of complete "purity" to the other representing complete anglicisation.

Despite the difficulty to construct a "picture" of the "typical marginal" ego, those classified as marginal, in the context of the present study, do have in common with one another three things. First, there is their almost unanimous support for the ruling Nationalist Party. Secondly, unlike their pure Afrikaner and anglicised counterparts there is no distinct trend observable as far as membership of cultural and/or social organizations are concerned. Third and finally, they have consistent social statuses.

Also evident is the fact that marginal egos are not restricted to a particular social class. They are also not more or less geographically mobile than respondents in other categories. Finally,

there are also no significant links between marginality and birth place or marginality and the areas where respondents grew up.

3. HYPOTHESES

The 12 hypotheses developed and reported in Chapter Four can be grouped into two broad categories. There are, first, those hypotheses concerning the relationships between the modes of adaptation or patterns of reaction and the social networks of people in the contact situation. Here the logic of the argument rests on the assumption that differences in behaviour will be reflected in the social networks of the actors in the contact situation. The second category includes hypotheses concerning the links between the behaviour patterns or modes of adaptation and, so called, background characteristics, for example, social class.

We begin our re-examination of the hypotheses by considering, first, those hypotheses included in the first category.

3.1. Behaviour Patterns and Social Networks

The seven hypotheses in this category postulate relationships between behaviour patterns on the one hand, and three structural and three interactional characteristics of social networks on the other hand. Here we re-examine each in turn.

3.1.1. Hypothesis One: *As the marginality of an ego increases the heterogeneity of his social network increases*

Overwhelming support for the above hypothesis is to be found in the data contained in Table 25.

TABLE 25

RESPONDENT CATEGORY BY HOMO-/HETEROGENEITY OF
SOCIAL NETWORKS AND SEX

HOMO- HETERO- GENEITY SCORE	RESPONDENT CATEGORY									GRAND TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	SEX		TOTAL	SEX		TOTAL	SEX		TOTAL	
	M	F		M	F		M	F		
0-10										
11-20										
21-30										
31-40							2	2	4	4
41-50				0	1	1	2	1	3	4
51-60				0	1	1	3	3	6	7
61-70	1	1	2	1	1	2	1	1	2	6
71-80	4	0	4	2	2	4				8
81-90	2	1	3	3	2	5				8
91-100	3	3	6	2	0	2				8
TOTAL	10	5	15	8	7	15	8	7	15	45

NOTE: The higher the score, the greater the network homogeneity.

Most striking is the fact that, while all marginal egos have a homo-/heterogeneity score of 70 or less, the great majority of all pure Afrikaners (13 out of 15) and anglicised egos (11 out of 15) have a homo-/heterogeneity score exceeding 70.⁵⁾

Focussing only on pure Afrikaners we note that more than one-third or six respondents have a social network that is more than 90% homogeneous. Moreover, not one informant in this category has a social network that is less than 61% homogeneous. The conclusion that pure Afrikaner networks are extremely homogeneous is, therefore, both inevitable and justified.

Among anglicised egos the social networks of two respondents are more than 90% homogeneous, while the social networks of five others are between 81% and 90% homogeneous. The social networks of only two respondents in this category are less than 61% homogeneous.

By comparison the social networks of marginal egos are much more heterogeneous. Whereas only two homo-/heterogeneity scores of 61-70 are recorded, four or almost one-third of all marginal egos have a social network homo-/heterogeneity score of less than 41. In fact, more than half (eight) of all marginal egos have a homo-/heterogeneity score which does not exceed 50.

Calculating the mean score, standard deviation and coefficient of variation for each respondent-category we observe the following:

Pure Afrikaner: $\bar{x} = 84,16$; $\sigma = 10,87$; $CV = 12,92$

Anglicised ego: $\bar{x} = 76,83$; $\sigma = 13,60$; $CV = 17,70$

Marginal ego: $\bar{x} = 47,10$; $\sigma = 9,75$; $CV = 20,70$

A comparison of mean scores indicates clearly that marginal egos are considerably lower in mean score than pure Afrikaners and anglicised egos. Pure Afrikaners have the highest score and lowest variability in scores (CV = 12,92) showing they are the most homogeneous *as a group*.

Given the fit between the data trend and the trend predicted by the hypothesis (Cramer's $V = 0,63$ showing a fairly high degree of association between score and respondent-category) we accept the hypothesis as confirmed. The fact that two different techniques of data gathering, viz. participant observation and interviewing, produced identical information (compare Tables 11 and 25) lends additional support to the decision to accept the hypothesis as confirmed.

A careful scrutiny of the data contained in Table 25 suggests, albeit only tentatively, two additional hypotheses. These hypotheses are new or novel in the sense that they were not included in our original list of 12 hypotheses.

Comparing the social networks of pure Afrikaners and anglicised egos with regard to homo-/heterogeneity we note that six pure Afrikaners as opposed to only two anglicised egos have social networks which are more than 91% homogeneous. In addition, the social networks of two anglicised egos are less homogeneous than the social network of any pure Afrikaner informant. The possibility that *the social networks of pure Afrikaners are more homogeneous than the social networks of anglicised egos* can, therefore, not be excluded. The fact that pure Afrikaners have the highest mean score ($\bar{x} = 84,16$) and lowest variability in scores (CV = 12,92) also support this hypothesis.

Investigating the relationship between sex, respondent-category and social network homo-/heterogeneity uncovers yet another tentative hypothesis. While it is clear that there is no link between sex and the homogeneity of social networks as far as marginal egos are concerned (male marginal egos: $\bar{x} = 49,25$; $\sigma = 9,92$; $CV = 20,15$; female marginal egos: $\bar{x} = 49,79$; $\sigma = 10,50$; $CV = 21,09$), the opposite seems to be the case when we consider the social networks of pure Afrikaners and anglicised egos. The fact that both anglicised egos with a low homo-/heterogeneity score (less than 61) are female, whereas both with a high score (91-100) are males suggests that: *the social networks of male anglicised egos are more homogeneous than the social networks of female anglicised egos*. The higher mean score of male anglicised egos ($\bar{x} = 83,00$; $\sigma = 9,68$) relative to female anglicised egos ($\bar{x} = 69,79$; $\sigma = 14,00$), as well as the lower variability of scores among anglicised males ($CV = 11,67$) relative to anglicised females ($CV = 20,06$), also support this hypothesis. Among pure Afrikaners the mean score of female respondents ($\bar{x} = 87,50$; $\sigma = 11,66$) is somewhat higher than the corresponding score of pure Afrikaner males ($\bar{x} = 82,50$; $\sigma = 10,05$), suggesting that the social networks of pure Afrikaner female egos are more homogeneous than the social networks of their male counterparts. However, the variability of scores among pure Afrikaner females ($CV = 13,33$) are slightly higher than the variability of scores among male pure Afrikaners ($CV = 12,18$). Because of this, plus the small number of female pure Afrikaners (five) interviewed, we regard the data as inconclusive.

Can these new hypotheses be explained? We argue that an explanation is to be found in the already confirmed hypothesis that an

increase in marginality results in an increase in network heterogeneity plus the fact that respondents *occupy positions on a continuum* ranging from the one extreme of pure Afrikaner to the other of being completely anglicised, with the midpoint representing complete marginality. The position occupied by anglicised egos, relative to their pure Afrikaner counterparts, must, therefore, be closer to the midpoint of the continuum which explains their lower homo-/heterogeneity scores. Similarly, female anglicised egos must occupy, relative to male anglicised egos, positions closer to the midpoint of the continuum which, in turn, explain their lower network homo-/heterogeneity scores.

In order to verify the validity of the above explanation it is necessary to examine the data collected for links between network homo-/heterogeneity and other variables which may have a bearing on it. Should we fail to uncover such links our confidence in the explanation will increase significantly. Conversely, if some significant ties do in fact exist the validity of the explanation must be questioned.

In the analysis that follows we focus on the relationships between network homo-/heterogeneity by respondent-category on the one hand, and (i) network size, (ii) social class, (iii) status consistency/inconsistency, (iv) geographical distribution of first-order contacts, (v) geographical mobility, (vi) birth place of ego and (vii) area where ego grew up, on the other hand.

In Chapter Two and again in Chapter Four of the present report we discussed the notion that size and homo-/heterogeneity are

two interdependent dimensions of the "range" of a social network. Our conclusion, based on information collected by means of participant observation, that they are not interdependent but rather separate morphological characteristics of social networks, can now be re-examined in the light of additional data collected by means of interviews. The relevant information appears in Table 26.

Calculating r we note that $r = 0,329$, showing that there is some, but slight, correlation between network size and network homo-/heterogeneity score. Thus, 10,82% ($r^2 = 0,108$) of variation in scores is explained by network size. It must be remembered, however, that there is a high degree of association between respondent-category and network homo-/heterogeneity (Cramer's $V = 0,63$) and also a slight association between respondent-category and network size (Cramer's $V = 0,33$). This, we believe, may in fact explain the slight correlation between network size and network homo-/heterogeneity. We, therefore, accept the conclusion that size and homo-/heterogeneity are separate morphological characteristics of social networks. An inspection of the data reported in Table 26 shows that small networks have both low and high homo-/heterogeneity scores. Similarly, large networks may be either very homogeneous or very heterogeneous. In short, size and homo-/heterogeneity can vary independently of each other. Once again, therefore, data collected by means of two different techniques, participant observation and interviewing, support the same conclusion. This greatly enhances the validity of the conclusion.

Next we examine the influence of social class on network homo-/heterogeneity. Table 27 makes it clear that there is very little

TABLE 26

RESPONDENT CATEGORY BY NETWORK HOMO-/
HETEROGENEITY AND NETWORK SIZE

RESPONDENT CATEGORY	NETWORK SIZE	HOMO-/HETEROGENEITY SCORE										TOTAL
		0- 10	11- 20	21- 30	31- 40	41- 50	51- 60	61- 70	71- 80	81- 90	91- 100	
Pure Afrikaner	0- 5							1	2	0	1	4
	6-10							0	1	2	1	4
	11-15							0	0	1	3	4
	16-20							1	1	0	1	3
Anglicized	0- 5					0	0	0	1	2	0	3
	6-10					1	1	1	2	3	1	9
	11-15					0	0	0	1	0	1	2
	16-20					0	0	1	0	0	0	1
Marginal	0- 5				3	2	2	0	0	0	0	7
	6-10				1	1	4	0	0	0	0	6
	11-15				0	0	0	1	0	0	0	1
	16-20				0	0	0	1	0	0	0	1
TOTAL					4	4	7	6	8	8	8	45

TABLE 27

RESPONDENT CATEGORY BY SOCIAL CLASS AND
NETWORK HOMO-/HETEROGENEITY

HOMO- HETERO- GENEITY SCORE	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	SOCIAL CLASS			SOCIAL CLASS			SOCIAL CLASS			
	W	M	U	W	M	U	W	M	U	
0-10										
11-20										
21-30										
31-40							1	2	1	4
41-50				0	1	0	0	2	1	4
51-60				0	1	0	2	3	1	7
61-70	0	2	0	0	2	0	1	1	0	6
71-80	1	2	1	1	3	0	0	0	0	8
81-90	1	2	0	1	3	1	0	0	0	8
91-100	2	4	0	0	2	0	0	0	0	8
TOTAL	4	10	1	2	12	1	4	8	3	45

NOTE: W = Working
M = Middle
U = Upper

association between social class and network homo-/heterogeneity. Cramer's $V = 0,234$ indicating that there is very little association between social class and social network homo-/heterogeneity. If we can, as some writers indicate, treat V^2 much as r^2 , then $V^2 = 0,0547$, showing that about 5,5% of variation in scores is explained by class, which is absolutely negligible. This finding is consistent with our earlier observation based on participant observation. Our confidence in the validity of the finding, therefore, increases significantly.

Despite the small number of respondents (eight) with a marginal status it was, nevertheless, decided to examine the available data for links between status consistency/inconsistency and network homo-/heterogeneity. The results are seen in Table 28. A review of this table leads to the inevitable conclusion that there is no significant relationship between network homo-/heterogeneity and status consistency/inconsistency (Cramer's $V = 0,31$). Thus within each respondent-category the few informants with marginal social statuses are, relative to all others in the same category, assigned both high and low homo-/heterogeneity scores.

The data displayed in Table 29 reveal that there is only a slight to moderate association (Cramer's $V = 0,44$) between the geographical distribution of ego's first-order contacts and network homo-/heterogeneity.⁶⁾ The association seems that social networks with a small scatter are most homogeneous. The absence of a high degree of association between network scatter and network homogeneity is especially evident among pure Afrikaners where seven and eight respectively, are classified as having small and large scatter networks.

TABLE 28

RESPONDENT CATEGORIES BY STATUS CONSISTENCY/INCONSISTENCY
AND NETWORK HOMO-HETEROGENEITY

HOMO- HETERO- GENEITY SCORE	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	STATUS		STATUS		STATUS		
	C	M	C	M	C	M	
0-10							
11-20							
21-30							
31-40					4	0	4
41-50			1	0	1	2	4
51-60			0	1	6	0	7
61-70	2	0	2	0	1	1	6
71-80	3	1	4	0	0	0	8
81-90	1	2	5	0	0	0	8
91-100	6	0	1	1	0	0	8
TOTAL	12	3	13	2	12	3	45

NOTE: C = Consistent
M = Marginal

TABLE 29

RESPONDENT CATEGORY BY GEOGRAPHICAL DISTRIBUTION OF FIRST-
ORDER CONTACTS AND NETWORK HOMO-/HETEROGENEITY

HOMO- HETERO- GENEITY SCORE	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	NETWORK SCATTER			NETWORK SCATTER			NETWORK SCATTER			
	S	M	L	S	M	L	S	M	L	
0-10										
11-20										
21-30										
31-40							4	0	0	4
41-50				0	1	0	3	0	0	4
51-60				1	0	0	5	0	1	7
61-70	1	0	1	2	0	0	2	0	0	6
71-80	1	0	3	2	0	2	0	0	0	8
81-90	2	0	1	5	0	0	0	0	0	8
91-100	3	0	3	1	1	0	0	0	0	8
TOTAL	7	0	8	11	2	2	14	0	1	45

NOTE: S = Small
M = Medium
L = Large

Homo-/heterogeneity scores of the eight large scatter networks in this respondent-category range from 61 to 100 with an identical range of scores applying to small scatter networks of pure Afrikaners.

In spite of the predominance of small scatter networks among anglicised (11) and marginal (14) egos prohibiting a small-large scatter comparison within these respondent-categories, the same trend towards a wide range of scores within small scale categories is, nevertheless, evident.

Given the strong, positive relationship between respondent-category and network homo-/heterogeneity (Cramer's $V = 0,63$) as well as the absence of a similar link between respondent-category and geographical mobility (Cramer's $V =$ only $0,136$), the discovery that little association exists between network homo-/heterogeneity and geographical mobility (Cramer's $V = 0,31$) is not unanticipated. The results of the examination are summarized in Table 30. Both within and across respondent-categories geographical mobility seems to be only slightly related to network homo-/heterogeneity. In short, a high (or medium or low) rate of geographical mobility does not necessarily imply either a low or a high homo-/heterogeneity score. A comparison of mean scores and variability of scores of respondents who were slightly, medially and highly mobile geographically, clearly supports this conclusion. The relevant data are as follows:

Low mobility:	$\bar{x} = 70,71$;	$\sigma = 19,93$;	$CV = 28,18$
Medium mobility:	$\bar{x} = 72,68$;	$\sigma = 18,52$;	$CV = 25,48$
High mobility:	$\bar{x} = 67,76$;	$\sigma = 17,53$;	$CV = 25,87$

TABLE 30

RESPONDENT CATEGORY BY GEOGRAPHICAL MOBILITY
AND NETWORK HOMO-/HETEROGENEITY

HOMO- HETERO- GENEITY SCORE	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	MOBILITY			MOBILITY			MOBILITY			
	L	M	H	L	M	H	L	M	H	
0-10										
11-20										
21-30										
31-40							2	1	1	4
41-50				0	0	1	2	0	1	4
51-60				0	1	0	1	2	3	7
61-70	1	0	1	0	0	2	1	0	1	6
71-80	0	2	2	3	0	1	0	0	0	8
81-90	2	0	1	2	3	0	0	0	0	8
91-100	2	1	3	1	1	0	0	0	0	8
TOTAL	5	3	7	6	5	4	6	3	6	45

NOTES: L = Low
M = Medium
H = High

Finally we consider the influence of two factors, viz. place of birth and area where respondent grew up, on network homo-/heterogeneity. The information on place of birth and area where respondent grew up appear in, respectively, Tables 31 and 32.

A review of Table 31 reveals that ego's place of birth, whether urban or rural, has no great bearing on the homogeneity or heterogeneity of his social network (Cramer's $V = 0,30$). This applies to both respondents within and across our respondent-categories. Once again the slight difference in mean scores (urban born: $\bar{x} = 68,52$; $\sigma = 17,62$ and rural born: $\bar{x} = 72,21$; $\sigma = 20,13$) as well as the small difference in the variability of scores (urban born: $CV = 25,72$ and rural born: $CV = 27,87$) supports this conclusion.

Similarly, Table 32 reveals that there is little association between the area where ego grew up, whether urban or rural, and network homo-/heterogeneity (Cramer's $V = 0,34$). Once again this is true both within and across respondent-categories. The mean homo-/heterogeneity score for those who grew up in urban areas ($\bar{x} = 69,77$; $\sigma = 18,11$) is very similar to the corresponding score for those who grew up in rural areas ($\bar{x} = 70,70$; $\sigma = 20,13$). Similarly, a comparison of the variability of scores among those who grew up in urban areas ($CV = 25,95$) with the variability of scores among those who grew up in rural areas ($CV = 28,45$) reveals no significant difference. The data clearly support our conclusion.

Tables 27, 28, 30-32 demonstrate clearly and convincingly the complete absence of any significant link or relationship between social network homo-/heterogeneity and the five background characteristics

TABLE 31

RESPONDENT CATEGORY BY PLACE OF BIRTH AND
NETWORK HOMO-/HETEROGENEITY

HOMO- HETERO- GENEITY SCORE	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	BIRTH PLACE		BIRTH PLACE		BIRTH PLACE		
	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	
0-10							
11-20							
21-30							
31-40					2	2	4
41-50			0	1	2	1	4
51-60			1	0	5	1	7
61-70	1	1	1	1	1	1	6
71-80	2	2	3	1	0	0	8
81-90	2	1	3	2	0	0	8
91-100	2	4	1	1	0	0	8
TOTAL	7	8	9	6	10	5	45

TABLE 32

RESPONDENT CATEGORY BY AREA WHERE RESPONDENT GREW UP
AND NETWORK HOMO-/HETEROGENEITY

HOMO- HETERO- GENEITY SCORE	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	AREA		AREA		AREA		
	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	
0-10							
11-20							
21-30							
31-40					2	2	4
41-50			1	0	2	1	4
51-60			1	0	5	1	7
61-70	2	0	0	2	1	1	6
71-80	2	2	3	1	0	0	8
81-90	2	1	5	0	0	0	8
91-100	3	3	1	1	0	0	8
TOTAL	9	6	11	4	10	5	45

specified. This discovery is extremely significant. It strengthens our conviction that network homo-/heterogeneity is an important aspect of ego's reaction to the contact situation. As such it is unlikely to be greatly affected by what is traditionally known as background characteristics. In a very real sense it is an expression of ego's own free choice which he employs, at least in part, to make adaptation to the situation easier and less problematic. An increased confidence in the validity of our explanation of the two new hypotheses is yet another important result of the failure to uncover a high degree of association between network homo-/heterogeneity and certain specified background factors.

3.1.2. Hypothesis Two: *As the marginality of an ego increases the density of his social network decreases*

The data in Table 33 reveal two trends; one supporting, the other not supporting, the hypothesis.

A comparison of anglicised and marginal respondents shows unquestionable support for the hypothesis. Whereas the social network density scores of more than two-thirds (11) of all anglicised egos exceeds 70, the network density scores of almost an identical number (ten) of marginal egos does not exceed 70. Using a score of 50 as a cut-off point the contrast between these two respondent-categories becomes even more marked. The social networks of almost two-thirds (nine) of all marginal egos are *less* than 50% dense while the social networks of the great majority of all anglicised egos (13 out of 15) are *more* than 50% dense. Equally noteworthy are the large number of marginal respondents (almost a third or four) with very low (11-20) density scores. By contrast, the lowest density score among anglicised

TABLE 33

RESPONDENT CATEGORY BY NETWORK DENSITY AND SEX

DENSITY SCORE	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	SEX		SEX		SEX		
	M	F	M	F	M	F	
0-10							
11-20	2	0			1	3	6
21-30	1	1			0	0	2
31-40	0	1	0	1	2	1	5
41-50	2	0	0	1	2	0	5
51-60	1	1	0	0	0	1	3
61-70	0	2	2	0	0	0	4
71-80	1	0	2	2	1	0	6
81-90	2	0	1	0	0	0	3
91-100	1	0	3	3	2	2	11
TOTAL	10	5	8	7	8	7	45

NOTE: M = Male
F = Female

egos is in the category 31-40. A comparison of mean scores and variability of scores clearly demonstrates the difference between anglicised egos ($\bar{x} = 77,97$; $\sigma = 18,24$; $CV = 23,39$) and marginal egos ($\bar{x} = 51,37$; $\sigma = 30,75$; $CV = 59,87$) with regard to the density of social networks.

The fit between the data trend and the trend predicted by the hypothesis is clearly reflected in the data discussed above.

An examination of network density among pure Afrikaner respondents produces unanticipated results. Contrary to expectations, given the hypothesis, the social networks of pure Afrikaners are not more dense than those of marginal egos. More than two-thirds (11) of all pure Afrikaner informants have a network density score not exceeding 70. The social networks of almost half (seven) are less than 51% dense. Moreover, low density scores (11-20 and 21-30) are also not uncommon. The similarity of the social networks of pure Afrikaners and the social networks of marginal egos with respect to network density is clearly illustrated by a comparison of mean scores (pure Afrikaners: $\bar{x} = 49,77$; $\sigma = 30,68$; and marginal egos: $\bar{x} = 51,37$; $\sigma = 30,75$) and a comparison of the variability of scores (pure Afrikaners: $CV = 61,64$; marginal egos: $CV = 59,87$).

Cramer's $V = 0,50$ indicating that there is a moderate association between network density and respondent-category. The association seems that the social networks of anglicised egos are dense whereas the social networks of pure Afrikaners and marginal egos are sparse.

The two data trends identified and discussed are so distinct that the unanticipated differences and similarities between respectively, pure Afrikaners and anglicised egos and pure Afrikaners and marginal egos cannot be ascribed to the operation of merely chance factors. A modification of the hypothesis is obviously called for. Reformulating the original hypothesis requires an examination of several factors that may explain why its prediction is only partially correct. These factors or variables are classified into two broad categories, viz. background characteristics and network characteristics. The former category includes: social class; status consistency/inconsistency; geographical mobility; ego's place of birth; and area where ego grew up. Included in the second category we have: size of first-order star; and network scatter. If the impact of background characteristics on network density is great then the argument that network density is an important aspect of ego's reaction to the contact situation must be reconsidered.

Because participant observation provided the information which led to the formulation of the original hypothesis, it is, methodologically speaking, equally important to consider to what extent the hypothesis is a reflection of the observer's situation-specificity. The reformulation provides us with an opportunity to evaluate the importance of triangulation (Denzin 1978) or methodological pluralism.

In the following discussion we consider, first, the potential impact of background characteristics on social network density. The relevant data appear in Tables 34-38. An examination of these tables leads to the following conclusions: One, there is very little association between social class and social network density (Cramer's $V = 0,35$).

TABLE 34
RESPONDENT CATEGORY BY SOCIAL CLASS AND
NETWORK DENSITY

DENSITY SCORE	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	SOCIAL CLASS			SOCIAL CLASS			SOCIAL CLASS			
	W	M	U	W	M	U	W	M	U	
0-10										
11-20	1	1	0				0	3	1	6
21-30	0	2	0				0	0	0	2
31-40	0	1	0	0	1	0	2	1	0	5
41-50	0	2	0	1	0	0	0	1	1	5
51-60	1	1	0	0	0	0	0	1	0	3
61-70	2	0	0	0	2	0	0	0	0	4
71-80	0	1	0	0	4	0	1	0	0	6
81-90	0	2	0	0	1	0	0	0	0	3
91-100	0	0	1	1	4	1	1	2	1	11
TOTAL	4	10	1	2	12	1	4	8	3	45

NOTE: W = Working
M = Middle
U = Upper

TABLE 35

RESPONDENT CATEGORY BY STATUS CONSISTENCY/
INCONSISTENCY AND NETWORK DENSITY

DENSITY SCORE	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	STATUS		STATUS		STATUS		
	C	M	C	M	C	M	
0-10							
11-20	1	1			3	1	6
21-30	2	0			0	0	2
31-40	1	0	1	0	2	1	5
41-50	2	0	1	0	1	1	5
51-60	2	0	0	0	1	0	3
61-70	1	1	2	0	0	0	4
71-80	0	1	2	2	1	0	6
81-90	2	0	1	0	0	0	3
91-100	1	0	6	0	4	0	11
TOTAL	12	3	13	2	12	3	45

NOTE: C = Consistent
M = Marginal

TABLE 36

RESPONDENT CATEGORY BY GEOGRAPHICAL MOBILITY
AND NETWORK DENSITY

DENSITY SCORE	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	MOBILITY			MOBILITY			MOBILITY			
	L	M	H	L	M	H	L	M	H	
0-10										
11-20	1	0	1				2	1	1	6
21-30	0	1	1				0	0	0	2
31-40	1	0	0	0	0	1	2	1	0	5
41-50	0	0	2	1	0	0	1	0	1	5
51-60	0	1	1	0	0	0	0	0	1	3
61-70	2	0	0	0	1	1	0	0	0	4
71-80	1	0	0	0	4	0	1	0	0	6
81-90	0	0	2	1	0	0	0	0	0	3
91-100	0	1	0	4	0	2	0	1	3	11
TOTAL	5	3	7	6	5	4	6	3	6	45

NOTE: L = Low
M = Medium
H = High

TABLE 37RESPONDENT CATEGORY BY PLACE OF BIRTH
AND NETWORK DENSITY

DENSITY SCORE	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	BIRTHPLACE		BIRTHPLACE		BIRTHPLACE		
	U	R	U	R	U	R	
0-10							
11-20	1	1			3	1	6
21-30	0	2			0	0	2
31-40	1	0	1	0	2	1	5
41-50	1	1	1	0	0	2	5
51-60	0	2	0	0	0	1	3
61-70	1	1	1	1	0	0	4
71-80	1	0	2	2	0	1	6
81-90	1	1	0	1	0	0	3
91-100	1	0	3	3	2	2	11
TOTAL	7	8	8	7	7	8	45

NOTE: U = Urban
R = Rural

TABLE 38

RESPONDENT CATEGORY BY AREA WHERE RESPONDENT
GREW UP AND NETWORK DENSITY

DENSITY SCORE	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	AREA		AREA		AREA		
	U	R	U	R	U	R	
0-10							
11-20	1	1			3	1	6
21-30	1	1			0	0	2
31-40	1	0	0	1	1	2	5
41-50	1	1	1	0	1	1	5
51-60	0	2	0	0	0	1	3
61-70	1	1	1	1	0	0	4
71-80	1	0	3	1	1	0	6
81-90	2	0	1	0	0	0	3
91-100	1	0	5	1	4	0	11
TOTAL	9	6	11	4	10	5	45

NOTE: U = Urban
R = Rural

This observation, although it applies both within and across respondent-categories, is particularly well illustrated when one considers the position of marginal egos. In the latter case low, medium and high density scores are represented in all three social classes. One example will suffice: network density scores of the three upper class marginal egos range from very low (11-20) to medium (41-50) to very high (91-100). Further support for this conclusion is to be found in a comparison of mean scores and the variability of scores. The relevant mean density scores are as follows:

Working class: $\bar{x} = 58,45$; $\sigma = 24,84$

Middle class: $\bar{x} = 59,52$; $\sigma = 27,21$

Upper class: $\bar{x} = 69,35$; $\sigma = 33,11$

The higher mean density score of upper class respondents seems to indicate that there is perhaps a moderate association between network density and social class. However, because of the small number of upper class respondents ($N = 5$) included in the sample, we regard the data as inconclusive. Comparing the variability of scores we note that the variability of scores show only a slight tendency to increase as social class status increases (working class: $CV = 42,51$; middle class: $CV = 45,73$; upper class: $CV = 47,74$). Two, network density is only slightly to moderately (Cramer's $V = 0,46$) affected by social status consistency/inconsistency. The association seems that the social networks of egos with a consistent social status are most dense. Among all informants with a consistent social status, irrespective of respondent-category, there are, however, some with low, others with medium and yet others with high network density scores. This is especially evident among pure Afrikaner respondents.

In fact there are at least one, and never more than two, pure Afrikaner respondents with a consistent social status in eight of the ten density score categories. In spite of much smaller numbers (8 as opposed to 37) the observation concerning low, medium and high density scores also applies to those respondents with a marginal social status.

Three, there is only a slight association (Cramer's $V = 0,32$) between geographical mobility and network density. The fact that the mean scores of those who were slightly mobile ($\bar{x} = 58,32$; $\sigma = 28,91$), medially mobile ($\bar{x} = 62,68$; $\sigma = 25,50$) and highly mobile ($\bar{x} = 61,82$; $\sigma = 28,51$) are almost identical, supports our conclusion. Once again the absence of a strong link is more clearly visible among pure Afrikaner informants. Of the five pure Afrikaner respondents who were, geographically speaking, hardly mobile (low mobility) three have density scores exceeding 61 while the remaining two have density scores of, respectively, 31-40 and 41-50. Network density for the three medially mobile informants in this respondent-category range from low (21-30) to medium (51-60) to very high (91-100). A similar range of scores is evident among highly mobile, pure Afrikaner respondents. An examination of the other two respondent-categories as well as a comparison of data across respondent-categories reveals no conflicting evidence. Four, variations in network density are only slightly related to ego's place of birth (Cramer's $V = 0,42$). Distinguishing between informants who were born in urban areas and those born in rural areas, we note great variations in network density scores within both groups in all three respondent-categories. For example, network density scores assigned to urban born pure Afrikaner informants ($N = 7$) range from 11-20 to 91-100 with never more than one respondent in each of seven density score categories. The

mean density score for urban born ($\bar{x} = 59,45$; $\sigma = 29,79$) and rural born ($\bar{x} = 55,35$; $\sigma = 38,14$) are fairly similar. This clearly supports our conclusion. Five, the area where respondents grew up, whether urban or rural, have only a moderate (Cramer's $V = 0,55$) impact on social network density. In both groups, i.e. urban and rural, within all three respondent-categories, great variations in network density scores occur. Once again this is most obvious among pure Afrikaner respondents who grew up in urban areas. Here the range of scores varies from 11-20 to 91-100 for nine respondents in eight density score categories. Comparing the variability of scores among those who grew up in urban areas ($CV = 43,03$) with the variability of scores among those who grew up in rural areas ($CV = 44,38$) we note an almost identical degree of variability in both cases.

The data summarized in Tables 34-38 demonstrate quite clearly that the impact of background characteristics on social network density is never great. While this is comforting in the sense that it enhances the validity of the argument that network density is an important aspect of ego's reaction to the contact situation, we are, nevertheless, still faced with the problem of explaining why pure Afrikaner respondents have lower than expected density scores. To this end we now examine the data collected for links between network density and other social network characteristics.

A number of writers (see for example: Cubitt (1973), Niemeijer (1973) and Vengroff (1975)) have commented on the link between network density and network size. The general consensus of opinion seems to be that the larger the size of the individual network

the lower the density of the network (see: Vengroff: 1975). If there is indeed an inverse relationship between network size and network density, and pure Afrikaner respondents have, in addition, larger networks than anglicised egos, it would explain, at least in part, why their networks are not as dense as expected. An examination of Table 39 makes it clear that there is a negative relationship between network size and network density. Considering, first, the very large (16-20) social networks, we note that in all five cases the network density scores do not exceed 50. Conversely, almost two-thirds (9 out of 14) of all small networks (0-5) have density scores exceeding 50. Moreover, the network density scores of eight are higher than 70. Thus the data trend unmistakably support the notion that an increase in network size is likely to lead to a decrease in network density and vice versa.

In addition Table 39 shows that the social networks of pure Afrikaners are indeed inclined to be larger than the networks of either anglicised or marginal egos. Almost half (7 out of 15) of all pure Afrikaners have more than ten first-order contacts while only three anglicised and two marginal egos have social networks with more than ten first-order contacts. Furthermore, of the five respondents with very large networks (16-20), three are pure Afrikaners with only one anglicised and one marginal ego reporting more than 15 first-order contacts.

The two observations discussed above provide at least a partial explanation for the unanticipated data trend revealed in Table 33. The logic of the explanation is as follows: Given the inverse relationship between network size and network density *and* the fact that the

TABLE 39

RESPONDENT CATEGORY BY NETWORK SIZE
AND NETWORK DENSITY

RESPONDENT CATEGORY	NETWORK SIZE	DENSITY SCORE										TOTAL
		0- 10	11- 20	21- 30	31- 40	41- 50	51- 60	61- 70	71- 80	81- 90	91- 100	
Pure Afrikaner	0- 5	0	1	0	0	0	0	0	0	2	1	4
	6-10	0	1	0	0	1	0	2	0	0	0	4
	11-15	0	0	1	0	0	2	0	1	0	0	4
	16-20	0	0	1	1	1	0	0	0	0	0	3
Anglicized	0- 5	0	0	0	0	0	0	1	1	0	1	3
	6-10	0	0	0	0	1	0	1	3	0	4	9
	11-15	0	0	0	0	0	0	0	0	1	1	2
	16-20	0	0	0	1	0	0	0	0	0	0	1
Marginal	0- 5	0	3	0	0	1	0	0	1	0	2	7
	6-10	0	1	0	2	1	0	0	0	0	2	6
	11-15	0	0	0	0	0	1	0	0	0	0	1
	16-20	0	0	0	1	0	0	0	0	0	0	1
TOTAL		0	6	2	5	5	3	4	6	3	11	45

social networks of pure Afrikaners are larger than those of anglicised egos, the networks of pure Afrikaners are likely to be less dense than the networks of anglicised egos. However, this explanation is incomplete, for the relationship between network size and network density is not a perfect inverse relationship (r is only $-0,204$). In short, there are very small social networks (0-5) with very low (11-20) density scores. Similarly, there are large networks (11-15) with very high (91-100) density scores. It is for this reason that the above explanation can only be partially correct.

Continuing the search for a fuller explanation of the unexpected data trend revealed in Table 33, we examine, next, the impact of network scatter on network density. The results are seen in Table 40. Concentrating⁷⁾ on pure Afrikaner respondents we distinguish between those with a low and those with a high network scatter. In the former, i.e. low scatter, category the great majority (6 out of 7) have network density scores ranging between 51 and 100. Only one recorded a score not exceeding 50, viz. 41-50. Conversely, those with a highly scattered network are more likely to have density scores not exceeding 50. Thus, the density scores of six, of a possible eight respondents in this category, range between 11 and 50. Calculating the mean score, standard deviation and coefficient of variation for each category of network scatter we note:

Low or Small scatter: $\bar{x} = 68,29$; $\sigma = 16,54$; $CV = 24,23$

High or Large scatter: $\bar{x} = 39,25$; $\sigma = 23,42$; $CV = 59,67$

Social networks with a small scatter have the highest mean score ($\bar{x} = 68,29$) and lowest variability ($CV = 24,73$) showing that they are

TABLE 40

RESPONDENT CATEGORY BY GEOGRAPHICAL DISTRIBUTION
OF FIRST-ORDER STAR AND NETWORK DENSITY

DENSITY SCORE	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	DISTRIBUTION			DISTRIBUTION			DISTRIBUTION			
	L	M	H	L	M	H	L	M	H	
0-10										
11-20	0	0	2				4	0	0	6
21-30	0	0	2				0	0	0	2
31-40	0	0	1	1	0	0	3	0	0	5
41-50	1	0	1	1	0	0	2	0	0	5
51-60	2	0	0	0	0	0	1	0	0	3
61-70	1	0	1	2	0	0	0	0	0	4
71-80	1	0	0	4	0	0	1	0	0	6
81-90	1	0	1	0	1	0	0	0	0	3
91-100	1	0	0	3	1	2	3	0	1	11
TOTAL	7	0	8	11	2	2	14	0	1	45

NOTE: L = Low
M = Medium
H = High

most dense. In addition Cramer's $V = 0,77$ indicates a high degree of association between network scatter and network density. The conclusion that network scatter has a definite bearing on network density is, in the light of available evidence, inescapable.

A comparison of respondent-categories also indicates (see Table 40) that the first-order contacts of pure Afrikaners are much more likely to be, geographically speaking, widely scattered. Supporting the previous observation are the following findings: One, almost two-thirds or nine of all pure Afrikaner informants (15) reported that they have first-order contacts not residing in Greater Durban. The corresponding number among anglicised and marginal egos are, respectively, six and five. Two, pure Afrikaner respondents reported a total of 154 first-order contacts of whom 49 or 31,8% are not residents in Metropolitan Durban. Only 12 or 9,9% of a possible 121 first-order contacts identified by anglicised egos, do not live in the contact situation. Also among marginal informants the number of first-order contacts not residing in Greater Durban, i.e. 13 or 12,4% of 105, are relatively small. Three, whereas 52,38% (55) of all first-order contacts of marginal egos live within 5 km. of the respondent, the corresponding percentage for anglicised egos is 44,63% (54) and that of pure Afrikaners a mere 27,27% (42).

The link between network density and network scatter plus the wide geographic distribution of the first-order contacts of pure Afrikaner respondents, provide a second explanation for the lower than expected density scores among this category of informants.

The results of the search for an explanation of the unanticipated data trend suggested by the information contained in Table 33 may be summarized as follows: One, the impact of background characteristics on network density is never great. Two, there is an inverse relationship between network size and network density. Three, the social networks of pure Afrikaners are larger than those of their anglicised counterparts. Four, there is a link between network scatter and network density. Five, the first-order contacts of pure Afrikaners are very often geographically widely distributed.

In view of the above findings it is suggested that the lower than expected density scores among pure Afrikaners is a function of either network size or network scatter or both. Given this explanation one would expect to find that low density scores are accompanied by either a large network or a large network scatter or both. Conversely one would expect that high density scores are accompanied by either small networks or a small network scatter or both. Taken to its logical conclusion the superimposition of small network and small network scatter should always result in a highly dense network, while a low density would be expected where a superimposition of large network and large network scatter occur. The validity of the explanation will be greatly increased if the data conforms to these expectations. To see whether this is the case we cross-tabulate network scatter by network size and network density.⁸⁾ Thus we verify the validity of the explanation by testing its implications.

Table 41 reflects overwhelming support for the explanation. As anticipated all three small networks with a low density have a large

TABLE 41

PURE AFRIKANERS : NETWORK SIZE BY NETWORK
SCATTER AND NETWORK DENSITY

NETWORK DENSITY	NETWORK SIZE			
	SMALL		LARGE	
	NETWORK SCATTER		NETWORK SCATTER	
	SMALL	LARGE	SMALL	LARGE
Low	0	3	0	4
High	4	1	3	0

network scatter. Also conforming to expectations is the fact that high density scores always occur where we have the superimposition of small network and small network scatter (four), while low density scores are always present given the superimposition of large network and large network scatter (four). In addition the network scatter of all three large networks with a high density are small. Finally, it is noteworthy that the only large scatter network with a high density is also a small network.

Knowing why the social networks of pure Afrikaners are less dense than those of their anglicised counterparts cannot explain, however, why a (partially) incorrect hypothesis was accepted in the first instance. Answering this question is of crucial importance for a meaningful reformulation of the original hypothesis. The solution is obviously concealed in the data that led to the acceptance of the

hypothesis. Two possibilities exist: either the hypothesis is based on faulty information or it is based on correct, yet insufficient information. In both instances the observer and/or the method of data gathering must accept responsibility for whatever inadequacies the data exhibit. However, in the present study incorrect data are much more likely to be a consequence of defective or biased observation whereas insufficient information is most probably the result of our method of data gathering. Two things, viz. the link between network scatter and network density as well as the fact that the hypothesis predicted correctly for two of the three respondent-categories, suggest that the problem is one of insufficient data caused by the observer's situation-specificity which, in turn, is a consequence of using participant observation as method of data collection. Although we were (intuitively) aware of the fact that pure Afrikaners are less likely to sever their ties with contacts not in Durban, the method of data collection did not allow for either determining the number of first-order contacts not resident in Durban or for an assessment of the extent to which existing links are active rather than latent or dormant. Given our situation-specificity our focus has been on the *local* networks of egos and consequently observations can really only apply to egos and their first-order contacts resident in the contact situation. This, we believe, explains our initial conclusion that the social networks of pure Afrikaners are highly dense, whereas in actual fact they are, as was subsequently proved in the light of new information, no more dense than the networks of marginal egos. Controlling for the influence of situation-specificity, by excluding all first-order contacts not residing in Metropolitan Durban, all density

scores were recalculated. Among anglicised and marginal informants the difference between the "old" and "new" scores are negligible perhaps because only a very small percentage of all first-order contacts of anglicised (9,9%) and marginal egos (12,4%) do not reside in the contact situation. In fact the scores of respectively 13 anglicised and 11 marginal egos remained the same. Only six scores changed: two being slightly higher while four are actually lower(!) than the "old" scores. The position among pure Afrikaners is very different. Not only were more than half (eight) of the "old" scores affected, but, in addition, all changes represent a significant, often dramatic, increase in network density. The average increase in network density is a staggering 32% (Median = 27%). A large majority (11) of scores now *exceeds* 50 while the number of scores exceeding 70 increased by six to a total of ten. Equally significant is the fact that the very low density scores are no longer present in the new distribution. Thus all four scores not exceeding 50 are in the range 41-50, whereas the old distribution included five scores lower than 41. The above information is summarized in Table 42.

The preceding analysis demonstrates clearly that insufficient data, due to the observer's situation-specificity rather than incorrect data caused by defective observation, were responsible for the acceptance of the original hypothesis. In addition the analysis exposed a new hypothesis and provides a basis for the reformulation of the original hypothesis. The new hypothesis concerns the link between network scatter and network density and reads as follows: *As the geographical distribution of ego's first-order contacts increases the density of his social network decreases.* Taking this link between network scatter and network

TABLE 42

A COMPARISON OF OLD AND NEW DENSITY
SCORES AMONG PURE AFRIKANERS

DENSITY SCORES	DISTRIBUTION	
	OLD	NEW
0-40	5	0
41-50	2	4
51-70	4	1
71-100	4	10
TOTAL	15	15

density into account we reformulate the original hypothesis as follows:
As the marginality of an ego increases the density of his local social network decreases.

3.1.3. Hypothesis Three: *As the marginality of an ego increases the multiplexity of the links of his social network decreases*

A very large majority (99,5% or 378) of all first-order contacts are tied to their respective anchorpoints by more than one link. In other words, most relationships are multiplex rather than uniplex. However, a review of Table 43 reveals significant differences in the degree of multiplexity.⁹⁾ Whereas the degree of multiplexity among marginal egos never exceeds six, the opposite applies to pure Afrikaner respondents where it is never less than six. In the latter

TABLE 43
RESPONDENTS BY RESPONDENT CATEGORY, DEGREE
OF MULTIPLEXITY AND SEX

DEGREE OF MULTI- PLEXITY	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	
1							
2							
3					1	1	2
4					3	2	5
5			2	2	2	4	10
6	2	1	2	2	2	0	9
7	6	0	1	2	0	0	9
8	0	1	3	1	0	0	5
9	2	3	0	0	0	0	5
10	0	0	0	0	0	0	0
TOTAL	10	5	8	7	8	7	45

respondent-category one-third (five) of all respondents have, on average, nine links with each of their first-order contacts. In contrast, the degree of multiplexity of links among almost half (seven) of all marginal informants are less than five. Focussing on anglicised respondents we note that the degree of multiplexity of links is never less than five or more than eight.

Calculating and then comparing the average degree of multiplexity of links applying to each respondent-category, we note that pure Afrikaner egos have an average of 7,6 ($\sigma = 1,14$) links with their first-order contacts while the corresponding number of links for anglicised and marginal respondents are, respectively, 6,5 ($\sigma = 1,15$) and 4,7 ($\sigma = 0,88$). The inference that the degree of multiplexity of links among anglicised respondents is higher than that among marginal egos, but lower than the degree of multiplexity of links among pure Afrikaner informants is, therefore, justified. Cramer's $V = 0,68$ showing a high degree of association between respondent-category and the degree of multiplexity.

The information on the link between respondent-category and degree of multiplexity of links clearly supports the original hypothesis. In addition, it also confirms our earlier argument that anglicised egos are, relative to pure Afrikaner respondents, closer to the midpoint of the continuum, where the midpoint represents complete marginality.

Once again it is important to control for the possible influence of, so-called, background characteristics on the degree of multiplexity of network links. Whether or not the degree of multiplexity of links forms part of ego's reaction to the contact situation depends

to a large extent on the rejection of possible alternative explanations for the observed differences in degree of multiplexity. In Tables 44-48 we examine the possible impact of, respectively, social class, status consistency/inconsistency, geographical mobility, place of birth and area where respondent grew up on the degree of multiplexity.

Reviewing these tables leads to the following observations: One, social class has no significant bearing on the degree of multiplexity of links (Cramer's V is only 0,26). This observation applies both within and across respondent-categories. Using marginal egos as an example — because there are more working and upper class informants in this respondent-category — we observe significant differences in the degrees of multiplexity within each social class. Thus, the social networks of all four working class marginal informants have different degrees of multiplexity: ranging from a low three to, for this respondent-category, a high six. Similarly, the social networks of the three upper class marginal egos also have different degrees of multiplexity: ranging from four to six. The social networks of middle class marginal egos are no exception. Here the differences in degree of multiplexity range from three to five. Additional evidence in support of our conclusion is to be found in a comparison of mean scores. The relevant data are the following:

Working class: $\bar{x} = 6,70$; $\sigma = 2,05$; CV = 30,62

Middle class: $\bar{x} = 6,03$; $\sigma = 1,47$; CV = 24,39

Upper class: $\bar{x} = 6,00$; $\sigma = 1,41$; CV = 23,57

Two, the degree of multiplexity of links is not significantly affected

TABLE 44
RESPONDENT CATEGORY BY SOCIAL CLASS AND
DEGREE OF MULTIPLEXITY

DEGREE OF MULTI- PLEXITY	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	CLASS			CLASS			CLASS			
	W	M	U	W	M	U	W	M	U	
1										
2										
3							1	1	0	2
4							1	3	1	5
5				0	4	0	1	4	1	10
6	0	3	0	0	4	0	1	0	1	9
7	1	4	1	1	2	0	0	0	0	9
8	0	1	0	1	2	1	0	0	0	5
9	3	2	0	0	0	0	0	0	0	5
10	0	0	0	0	0	0	0	0	0	0
TOTAL	4	10	1	2	12	1	4	8	3	45

NOTE: W = Working
M = Middle
U = Upper

TABLE 45

RESPONDENT CATEGORY BY STATUS CONSISTENCY/
INCONSISTENCY AND DEGREE OF MULTIPLEXITY

DEGREE OF MULTI- PLEXITY	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	STATUS		STATUS		STATUS		
	C	M	C	M	C	M	
1							
2							
3					2	0	2
4					4	1	5
5			3	1	5	1	10
6	3	0	4	0	1	1	9
7	4	2	2	1	0	0	9
8	1	0	4	0	0	0	5
9	4	1	0	0	0	0	5
10	0	0	0	0	0	0	0
TOTAL	12	3	13	2	12	3	45

NOTE: C = Consistent
M = Marginal

TABLE 46

RESPONDENT CATEGORY BY GEOGRAPHICAL MOBILITY
AND DEGREE OF MULTIPLEXITY

DEGREE OF MULTI- PLEXITY	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	MOBILITY			MOBILITY			MOBILITY			
	L	M	H	L	M	H	L	M	H	
1										
2										
3							1	0	1	2
4							2	2	1	5
5				0	1	3	2	1	3	10
6	1	0	2	3	1	0	1	0	1	9
7	2	1	3	1	1	1	0	0	0	9
8	0	1	0	2	2	0	0	0	0	5
9	2	1	2	0	0	0	0	0	0	5
10	0	0	0	0	0	0	0	0	0	0
TOTAL	5	3	7	6	5	4	6	3	6	45

NOTE: L = Low
M = Medium
H = High

TABLE 47

RESPONDENT CATEGORY BY PLACE OF BIRTH AND
DEGREE OF MULTIPLEXITY

DEGREE OF MULTI- PLEXITY	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	BIRTHPLACE		BIRTHPLACE		BIRTHPLACE		
	U	R	U	R	U	R	
1							
2							
3					1	1	2
4					2	3	5
5			2	2	3	3	10
6	1	2	1	3	1	1	9
7	5	1	2	1	0	0	9
8	0	1	3	1	0	0	5
9	1	4	0	0	0	0	5
10	0	0	0	0	0	0	0
TOTAL	7	8	8	7	7	8	45

NOTE: U = Urban
R = Rural

TABLE 48

RESPONDENT CATEGORY BY AREA WHERE RESPONDENT GREW UP AND DEGREE OF MULTIPLEXITY

DEGREE OF MULTI- PLEXITY	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	AREA		AREA		AREA		
	U	R	U	R	U	R	
1							
2							
3					2	0	2
4					4	1	5
5			2	2	2	4	10
6	2	1	4	0	2	0	9
7	5	1	1	2	0	0	9
8	1	0	4	0	0	0	5
9	1	4	0	0	0	0	5
10	0	0	0	0	0	0	0
TOTAL	9	6	11	4	10	5	45

NOTE: U = Urban
R = Rural

by either a consistent or a marginal social status (Cramer's V is only 0,27). Once again this is evident both within and across respondent-categories. Both high and low degrees of multiplexity are present, irrespective of status consistency/inconsistency, in all three respondent-categories. For example, among pure Afrikaner respondents with a consistent social status the degrees of multiplexity range from six to nine, while the corresponding range for those with a marginal social status is almost identical, viz. seven to nine. Similar observations apply to the other respondent-categories. Three, equally obvious (see Table 46) is the little association between geographical mobility and the degree of multiplexity of links (Cramer's V = 0,33). One example will suffice: among pure Afrikaner respondents who were slightly mobile the degrees of multiplexity of the links of their social networks range from six to nine while the corresponding ranges among those who were either medially or highly mobile are, respectively, seven to nine and six to nine. In other words, there is no significant difference. A comparison of mean- and variability scores provides further support for the argument that there is very little association between geographical mobility and the degree of multiplexity of links. The data are as follows:

Low mobility: $\bar{x} = 6,24$; $\sigma = 1,66$; CV = 26,68

Medium mobility: $\bar{x} = 6,45$; $\sigma = 1,67$; CV = 25,89

High mobility: $\bar{x} = 5,95$; $\sigma = 1,55$; CV = 26,12

Four, the degree of multiplexity is almost completely independent of ego's place of birth (Cramer's V = 0,36). This applies to urban and rural born, within and across, respondent-categories. Considering,

for example, marginal egos we note that the range of degrees of multiplexity (here three to six) is identical for both urban and rural born. Again the same observation applies to pure Afrikaner (range six to nine) and anglicised (range five to eight) respondents. Once again a comparison of mean- and variability scores support the conclusion. The following apply:

Urban born: $\bar{x} = 6,18$; $\sigma = 1,50$; CV = 24,21

Rural born: $\bar{x} = 6,17$; $\sigma = 1,76$; CV = 28,52

Five, and finally, the area where ego grew up is only slightly related to the degree of multiplexity. This is clearly illustrated by the data in Table 48. The social networks of both urban and rural born pure Afrikaner informants have degrees of multiplexity ranging from six to nine. Among urban and rural born anglicised respondents the corresponding ranges are, respectively, five to eight and five to seven. The social networks of urban born marginal egos range in degree of multiplexity from three to six while the range among their rural born counterparts is from four to five. Supporting our conclusion are the following data:

Grew up in an urban area: $\bar{x} = 6,03$; $\sigma = 1,56$; CV = 25,85

Grew up in a rural area: $\bar{x} = 6,47$; $\sigma = 1,75$; CV = 27,00

The absence of a great impact of background characteristics on the degree of multiplexity of links, strengthens our belief that the latter is an important aspect of ego's reaction to the contact situation.

Considering next the link between the degree of multiplexity and other network characteristics we investigate the possible impact

of network size (Table 49) and network scatter (Table 50) on the degree of multiplexity.

The data displayed in Table 49 demonstrates clearly that network size has only a slight bearing on the degree of multiplexity (r for grouped data = 0,38). For example, among pure Afrikaner respondents with small networks (0-10), and among those with large networks (11-20), there are low (6) and high (9) degrees of multiplexity. This absence of a high degree of association between network size and degree of multiplexity is also evident among anglicised and marginal informants.

Table 50 makes it clear that the degree of multiplexity is not greatly influenced (Cramer's $V = 0,39$) by the geographical distribution of ego's first-order contacts.¹⁰⁾ Thus, among pure Afrikaner respondents with small scatter networks, and among those with large scatter networks, there are both low (6) and high (9) degrees of multiplexity of links.

3.1.4. Hypothesis Four: *The first-order friendship networks of pure Afrikaner egos are larger than those of their marginal and anglicised counterparts*

Earlier it was noted (see Chapter Three p.111 and also Cubitt 1973:74) that people's conception of "friendship" may be different. In the present study it soon became evident that this is indeed the case. Thus one pure Afrikaner respondent defined a friend as "someone who sits at my table", while a marginal ego declared "we do not visit our friends". Also interesting is the fact that marginal egos are inclined to refer to their friends by title, i.e. Mr. or Mrs., or surname whereas pure

TABLE 49
RESPONDENT CATEGORY BY NETWORK SIZE AND
DEGREE OF MULTIPLEXITY

RESPONDENT CATEGORY	NETWORK SIZE	DEGREE OF MULTIPLEXITY										TOTAL
		1	2	3	4	5	6	7	8	9	10	
Pure Afrikaner	0-5						1	3	0	0	0	4
	6-10						1	1	0	2	0	4
	11-15						0	1	1	2	0	4
	16-20						1	1	0	1	0	3
Anglicized	0-5					0	1	0	2	0	0	3
	6-10					4	2	2	1	0	0	9
	11-15					0	1	0	1	0	0	2
	16-20					0	0	1	0	0	0	1
Marginal	0-5			1	5	1	0	0	0	0	0	7
	6-10			1	0	4	1	0	0	0	0	6
	11-15			0	0	1	0	0	0	0	0	1
	16-20			0	0	0	1	0	0	0	0	1
TOTAL		0	0	2	5	10	9	9	5	5	0	45

TABLE 50

RESPONDENT CATEGORY BY GEOGRAPHICAL DISTRIBUTION OF
FIRST-ORDER STAR AND DEGREE OF MULTIPLEXITY

DEGREE OF MULTI- PLEXITY	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	SCATTER			SCATTER			SCATTER			
	L	M	H	L	M	H	L	M	H	
1										
2										
3							1	0	1	2
4							5	0	0	5
5				3	1	0	6	0	0	10
6	2	0	1	2	1	1	2	0	0	9
7	2	0	4	2	0	1	0	0	0	9
8	0	0	1	4	0	0	0	0	0	5
9	3	0	2	0	0	0	0	0	0	5
10	0	0	0	0	0	0	0	0	0	0
TOTAL	7	0	8	11	2	2	14	0	1	45

NOTE: L = Low
M = Medium
H = High

Afrikaner and anglicised informants use first names or nicknames. Yet another interesting observation is the fact that both pure Afrikaner and anglicised egos tend to include husbands and their wives as friends while marginal informants are much more likely to include only the one or the other, seldom both. Related to this observation is the discovery that pure Afrikaner and anglicised respondents are much more likely, relative to marginal egos, to include people of the opposite sex in their social networks.

Despite these obvious differences we still argue that it is preferable to allow the respondent to work with his own definition of "friend" rather than to impose on him a definition which is meaningless in terms of his definition of the situation. Imposing a "strange" definition may lead to a much greater distortion of the facts.

We have already noted that almost half (7) of all pure Afrikaners have more than ten first-order contacts, while only three anglicised and two marginal egos have social networks with more than ten first-order contacts. Also revealed was the fact that, of the five respondents with very large networks (16-20), three are pure Afrikaners with only one anglicised and one marginal ego reporting more than 15 first-order contacts. In view of the above information we may conclude that the social networks of pure Afrikaners are definitely larger than the networks of either anglicised or marginal egos.

In addition, the data presented in Table 51 reveal that the social networks of anglicised egos are larger than the networks of marginal informants. Thus, whereas almost half (7) of all marginal

respondents have no more than five first-order contacts, almost two-thirds (9) of all anglicised egos have between six and ten first-order contacts.

TABLE 51
RESPONDENT CATEGORY BY NETWORK SIZE AND SEX

NETWORK SIZE	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICISED		MARGINAL		
	SEX		SEX		SEX		
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	
0- 5	4	0	2	1	4	3	14
6-10	2	2	5	4	3	3	19
11-15	2	2	1	1	0	1	7
16-20	2	1	0	1	1	0	5
TOTAL	10	5	8	7	8	7	45

Supporting the above observations is the fact that the mean network size among pure Afrikaner respondents is 10,3 as opposed to a mean of, respectively 8,1 and 6,9 among anglicised and marginal egos.¹¹⁾

Combining our observations regarding network size with our earlier argument that anglicised egos occupy, relative to pure Afrikaner egos, a position closer to the midpoint of the continuum, we can now

reformulate the above hypothesis to read: *As the marginality of an ego increases the size of his first-order friendship network decreases.*

Next we examine the potential impact of background characteristics on network size. The relevant data are summarized in Tables 52-56. Reviewing these tables we note the following: One, there is no significant relationship between network size and social class (Cramer's V is only 0,18). Concentrating on middle class informants, for example, we note the presence of small and large social networks both within, and across, respondent-categories. Also among working class respondents there are some with large networks while others have small social networks. Two, network size is not affected by either a consistent or a marginal social status (Cramer's V is only 0,08). Although this applies, once again, both within and across respondent-categories, it is most evident among pure Afrikaner informants. In the latter instance the 12 respondents with a consistent social status are equally (3 in each) distributed among the four network size categories. Similarly, each of the pure Afrikaner respondents with a marginal social status (3) have a different size network; ranging from small (0-5) to fairly large (11-15). Three, geographical mobility has no bearing on network size (Cramer's V is only 0,16). Among those informants who were hardly mobile (low mobility), in all three respondent-categories, there are some with small and others with large social networks. The same observation applies equally to respondents who were highly mobile. Four, there is only a slight association between network size and the place of birth of ego (Cramer's $V = 0,36$). A comparison of the network sizes of urban and rural born respondents, within and across respondent-categories, clearly demonstrates

TABLE 52
RESPONDENT CATEGORY BY NETWORK SIZE
AND SOCIAL CLASS

RESPONDENT CATEGORY	NETWORK SIZE	SOCIAL CLASS			TOTAL
		WORKING	MIDDLE	UPPER	
Pure Afrikaner	0- 5	1	2	1	4
	6-10	2	2	0	4
	11-15	1	3	0	4
	16-20	0	3	0	3
Anglicized	0- 5	0	3	0	3
	6-10	2	6	1	9
	11-15	0	2	0	2
	16-20	0	1	0	1
Marginal	0- 5	2	4	1	7
	6-10	1	3	2	6
	11-15	0	1	0	1
	16-20	1	0	0	1
TOTAL		10	30	5	45

TABLE 53
RESPONDENT CATEGORY BY NETWORK SIZE AND
STATUS CONSISTENCY/INCONSISTENCY

RESPONDENT CATEGORY	NETWORK SIZE	STATUS		TOTAL
		CONSISTENT	MARGINAL	
Pure Afrikaner	0- 5	3	1	4
	6-10	3	1	4
	11-15	3	1	4
	16-20	3	0	3
Anglicized	0- 5	3	0	3
	6-10	7	2	9
	11-15	2	0	2
	16-20	1	0	1
Marginal	0- 5	5	2	7
	6-10	6	0	6
	11-15	1	0	1
	16-20	0	1	1
TOTAL		37	8	45

TABLE 54
RESPONDENT CATEGORY BY NETWORK SIZE AND
GEOGRAPHICAL MOBILITY

RESPONDENT CATEGORY	NETWORK SIZE	GEOGRAPHICAL MOBILITY			TOTAL
		LOW	MEDIUM	HIGH	
Pure Afrikaner	0- 5	0	1	3	4
	6-10	3	0	1	4
	11-15	1	2	1	4
	16-20	1	0	2	3
Anglicized	0- 5	1	2	0	3
	6-10	3	3	3	9
	11-15	2	0	0	2
	16-20	0	0	1	1
Marginal	0- 5	4	2	1	7
	6-10	1	1	4	6
	11-15	0	0	1	1
	16-20	1	0	0	1
TOTAL		17	11	17	45

TABLE 55
RESPONDENT CATEGORY BY NETWORK SIZE
AND PLACE OF BIRTH

RESPONDENT CATEGORY	NETWORK SIZE	PLACE OF BIRTH		TOTAL
		URBAN	RURAL	
Pure Afrikaner	0- 5	2	2	4
	6-10	2	2	4
	11-15	1	3	4
	16-20	2	1	3
Anglicized	0- 5	3	0	3
	6-10	4	5	9
	11-15	0	2	2
	16-20	1	0	1
Marginal	0- 5	3	4	7
	6-10	3	3	6
	11-15	0	1	1
	16-20	1	0	1
TOTAL		22	23	45

TABLE 56

RESPONDENT CATEGORY BY NETWORK SIZE AND
AREA WHERE RESPONDENT GREW UP

RESPONDENT CATEGORY	NETWORK SIZE	AREA		TOTAL
		URBAN	RURAL	
Pure Afrikaner	0- 5	3	1	4
	6-10	2	2	4
	11-15	2	2	4
	16-20	2	1	3
Anglicized	0- 5	3	0	3
	6-10	6	3	9
	11-15	2	0	2
	16-20	0	1	1
Marginal	0- 5	6	1	7
	6-10	3	3	6
	11-15	0	1	1
	16-20	1	0	1
TOTAL		30	15	45

the absence of a significant link between birthplace and network size. For example, four (4) urban born pure Afrikaner informants have small (0-10) networks while three (3) have large (11-20) social networks. The corresponding number of rural born pure Afrikaner egos with small networks are also four (4), while the remaining four (4) informants have large social networks. Five, variations in network size are independent of the area where ego grew up (Cramer's V is only 0,18). Again this applies both within and across respondent-categories. Looking at pure Afrikaner respondents, for example, we see that among those who grew up in an urban area almost half or four have large networks, while five have small networks. Among pure Afrikaner respondents who grew up in rural areas we note that three have large networks while an identical number have small networks.

In view of the above observations we conclude that background characteristics have no great impact on network size. Along with network density, network homo-/heterogeneity and the degree of multiplexity of links, network size is, therefore, regarded as an important aspect of ego's reaction to the contact situation.

Our earlier observations concerning the impact of network size and network scatter on network density raised the question of whether or not there is a link between network size and network scatter.

An examination of Table 57 makes it clear that small scatter networks may be either small or large in size. This applies to all three respondent-categories. Focussing on pure Afrikaner respondents we note, in addition, that half (4) of those with large scatter networks have small (0-10) networks while the remaining informants (4)

TABLE 57

RESPONDENT CATEGORY BY NETWORK SIZE AND GEOGRAPHICAL
DISTRIBUTION OF FIRST-ORDER CONTACTS

RESPONDENT CATEGORY	NETWORK SIZE	GEOGRAPHICAL DISTRIBUTION			TOTAL
		SMALL	MEDIUM	LARGE	
Pure Afrikaner	0- 5	2	0	2	4
	6-10	2	0	2	4
	11-15	3	0	1	4
	16-20	0	0	3	3
Anglicized	0- 5	2	0	1	3
	6-10	7	1	1	9
	11-15	1	1	0	2
	16-20	1	0	0	1
Marginal	0- 5	6	0	1	7
	6-10	6	0	0	6
	11-15	1	0	0	1
	16-20	1	0	0	1
TOTAL		32	2	11	45

have large (11-20) social networks. In the same respondent-category among those with small networks, four have large scatter networks while an identical number have small scatter networks.

Given the above observations we conclude, therefore, that there is no significant (Cramer's $V = 0,28$) relationship between network size and the geographical distribution of ego's first-order contacts.

3.1.5. Hypothesis Five: *The social networks of pure Afrikaner informants are more durable than those of anglicised and marginal egos*

Hypothesis Six: *The social networks of anglicised egos are more durable than the networks of marginal egos*

Operationally durability was defined as "the age of ego's network relative to his period of residency in Durban". The age of each network and its durability score was next calculated in accordance with the procedure discussed in Chapter Three (see pp.136-137). The resulting durability scores are almost without exception 100, indicating that most networks are highly durable. In fact only eight respondents: one pure Afrikaner, three anglicised, and four marginal egos, scored less than 90. Although the data trends among those with durability scores of less than 90 are congruent with the trends predicted by the hypotheses, there are so few respondents in this group that we cannot accept the hypotheses as confirmed solely on the basis of this evidence.

The lack of support for the hypotheses indicates that they are either incorrect or, alternatively, that the indicator used is unsuitable as an index of durability when employed on its own. Pursuing this last mentioned possibility we re-examine the hypotheses using three

kinds of information assumed to be related, albeit only imperfectly, to network durability. The rationale for using a multiplicity of indicators is the assumption that their combined effect will be an increase in the validity of the measurement procedure and a consequent increase in the validity of the conclusions drawn. The indicators to be used are the following:

One, the percentage of "new" first-order contacts of the total number of first-order contacts in a given respondent-category;¹²⁾

Two, the number of egos in a given respondent-category with a durability score exceeding 90; and

Three, the mean number of years that respondents in a given respondent-category have known their first-order contacts.

The results of the re-examination appear in Table 58.

All three indicators used reveal that the social networks of pure Afrikaner respondents are indeed more durable than the networks of either anglicised or marginal egos. Thus, in comparison with other informants, pure Afrikaners have a lower percentage of new contacts (6,5% as opposed to 15,7% and 12,6%), the mean age of their first-order links are higher (11,28 years as opposed to 10,21 and 8,5 years) and a larger number (14 as opposed to 12 and 11) have durability scores exceeding 90. We therefore accept the original hypothesis that the social networks of pure Afrikaners are more durable than the networks of anglicised and marginal egos.

Two of the three indicators reveal, in addition, that the social networks of anglicised egos are more durable than those of

TABLE 58
RESPONDENT CATEGORY BY INDICATORS OF
NETWORK DURABILITY

INDICATORS OF DURABILITY	RESPONDENT CATEGORY		
	PURE AFRIKANER	ANGLICISED	MARGINAL
Percentage (%) of new first-order contacts	6,5	15,7	12,6
Total number of egos with a durability score exceeding 90	14	12	11
Mean age of links between egos and their first-order contacts, recorded in years	11,28	10,21	8,5

marginal respondents. Thus, in comparison with marginal egos, more anglicised respondents have durability scores exceeding 90 (12 as opposed to 11) and the mean age of their first-order links are higher (10,21 years as opposed to 8,5 years). Under "normal" circumstances, for example in the case of a single test of an hypothesis, the above findings could hardly be described as compelling evidence. However, because the data collected by means of participant observation support these findings, we do not hesitate to accept the hypothesis that *the social networks of anglicised egos are more durable than the networks of marginal informants*. The assumption that as multiplexity increases

durability increases (see for example: Mitchell 1969:23), plus the fact that the social networks of anglicised egos are more multiplex than the networks of marginal informants, provide further theoretical and empirical support for the hypothesis.

The larger percentage of new first-order contacts among anglicised egos (15,7%) relative to marginal egos (12,6%) cannot, however, be ignored. This finding, along with our observations regarding the durability of the networks of pure Afrikaner respondents, strengthens our belief that anglicised informants are, relative to their pure Afrikaner counterparts, closer to marginal egos on the continuum. If this is the case, and increasingly the evidence suggests that it is indeed true, we can combine the two hypotheses into one more inclusive hypothesis as follows: *As the marginality of an ego increases the durability of his social network decreases.*

Establishing whether or not background characteristics have some bearing on network durability requires a different procedure from the one followed so far. Although it is self-evident that one network is more durable than another, our original procedure for measuring the magnitude of the durability difference did not produce the desired results. The rather narrow range of durability scores; most respondents (37) are in the category 91-100, does not justify a cross-tabulation of durability scores with background characteristics. Hence the need for a different procedure to determine the possible influence of background characteristics on network durability. Working with a rather crude distinction between *durable* and *not durable* social networks, we propose to examine the latter for signs that factors other

than the contact situation may explain variations in network durability. Two indicators are employed to differentiate between "durable" and "not durable" social networks. Thus the social networks of informants are classified as "not durable" if their first-order stars include new members and/or their network durability scores do not exceed 90. Conversely, for a social network to be classified as "durable" the first-order star must include no new members *and* its durability score must exceed 90. Following this procedure 20 networks¹³⁾ are classified as "not durable" while 25 are considered to be "durable".

An examination of the background characteristics of respondents whose social networks are regarded as not durable reveals the following: One, five, 13 and two informants are classified, respectively, as working, middle and upper class. Comparing this distribution with that of the total sample we see that they are almost identical. Thus, the social networks of exactly half of all working class respondents, and almost half of all middle and upper class informants, are not durable. We, therefore, argue that variations in network durability are independent of variations in social class. Two, the social status of a great majority (18) of egos in this category are consistent. Again this is congruent with the observed trend among all respondents. In fact the 18 respondents mentioned represent almost half of all (37) informants with a consistent social status. This, we believe, justifies the conclusion that social status consistency/inconsistency have no impact on network durability. Three, while almost half or nine respondents were only slightly geographically mobile, two were medially and nine were highly mobile. This equal distribution between low and high

geographical mobility suggests that the latter are independent of network durability. Four, ego's birthplace is unrelated to network durability. A total of 12 informants were born in urban areas while a similarly large number (8) were born in rural areas. Five, and finally, with 14 and 6 respondents growing up in, respectively, urban and rural areas, the ratio of those who grew up in urban areas to those who grew up in rural areas corresponds very closely to the ratio of 2:1 which applies to the same distribution in the total sample. We conclude, therefore, that there is no relationship between the area where egos grew up and network durability.

The above observations clearly demonstrate that background characteristics have no bearing on network durability. Network durability must, therefore, be regarded as an important aspect of ego's reaction to the contact situation.

3.1.6. *Hypothesis 7: The frequency of contact between pure Afrikaner egos and their first-order contacts is slightly higher than the frequency of contact between either marginal or anglicised egos and their first-order contacts*

In Table 59 we cross-classify respondent-category by sex and frequency of contact.¹⁴⁾ The information displayed in this table reveals a data trend that not only fails to support the original hypothesis but which is, in fact, quite the reverse of the trend predicted by the hypothesis. We note, for example, that more than a third or six of all marginal egos interact with the members of their first-order stars on average more than ten times per month, while the corresponding number of anglicised and pure Afrikaner respondents are, respectively, only three and two. Perhaps even more significant

TABLE 59
RESPONDENT CATEGORY BY SEX AND
FREQUENCY OF CONTACT

FREQ- UENCY OF CONTACT	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	SEX		SEX		SEX		
	M	F	M	F	M	F	
0- 5	6	2	4	2	4	4	22
6-10	2	3	2	4	1	0	12
11-15	2	0	1	1	0	2	6
16-20			1	0	2	1	4
21-25					1	0	1
26+							0
TOTAL	10	5	8	7	8	7	45

NOTE: M = Male

F = Female

is the fact that so many marginal egos (4) interact with their first-order contacts on average more than 15 times per month. A similar frequency of interaction is reported by only one other informant, namely an anglicised respondent. Table 59 also indicates that, relative to anglicised (12) and marginal egos (9), a larger number of pure Afrikaner respondents (13) interact with the members of their first-order stars on average less than 11 times per month.

The data support the following two conclusions: One, of all respondents, irrespective of respondent-category, the frequency of interaction between marginal respondents and their first-order contacts are the highest. Two, the frequency of contact between anglicised egos and their first-order contacts are slightly higher than the frequency of contact between pure Afrikaner informants and their first-order contacts.

Calculating the average monthly contact between anchorpoints and the members of their first-order stars for each respondent-category provide further support for the above conclusions. Thus marginal informants interact, on average 8,04 times per month with their first-order contacts whereas the corresponding frequencies of contact for pure Afrikaner and anglicised respondents are only 4,82 and 6,68 respectively.

The above findings in conjunction with the evidence suggesting that anglicised respondents are, relative to pure Afrikaner egos, closer to the midpoint of the continuum, leads to the following hypothesis:

As the marginality of an ego increases the frequency of contact between him and the members of his first-order star increases.

Rejecting the original hypothesis inevitably raises the question why a wrong hypothesis was accepted in the first instance. Answering this question requires an examination of the possible impact of several factors on the frequency of contact.

In the following analysis we consider, first, the possible influence of background characteristics on the frequency of contact. The relevant data are summarized in Tables 60-64. It is possible to draw several inferences from these tables. They are: One, there is very little association between the frequency of contact and social class (Cramer's $V = 0,38$). Focussing on, for example, marginal egos we note that both low and high frequencies of contact are present in all three social classes. Two, similarly, variations in the frequency of contact are not greatly affected by status consistency/inconsistency (Cramer's $V = 0,34$). Low and high frequencies of contact are present among respondents with a consistent social status and among informants with a marginal social status. This applies both within and across all respondent-categories. Three, there is no significant relationship between geographical mobility and frequency of contact (Cramer's $V = 0,25$). A comparison of geographical mobility with frequency of contact within and across respondent-categories clearly shows that low and high frequencies of contact are present among those who were slightly mobile, medially mobile and highly mobile. Four, ego's place of birth has no great bearing on the frequency of contact (Cramer's $V = 0,30$). The almost random distribution of data in Table 63 clearly support this observation. Five, the area where the respondent grew up has very little impact on the frequency of contact (Cramer's V is only $0,22$). A comparison of those who grew up in urban areas with those who grew

TABLE 60
RESPONDENT CATEGORY BY SOCIAL CLASS AND
FREQUENCY OF CONTACT

FREQ- UENCY OF CONTACT	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	CLASS			CLASS			CLASS			
	W	M	U	W	M	U	W	M	U	
0- 5	1	6	1	1	4	1	2	4	2	22
6-10	2	3	0	1	5	0	1	0	0	12
11-15	1	1	0	0	2	0	0	2	0	6
16-20				0	1	0	1	2	0	4
21-25							0	0	1	1
26+										0
TOTAL	4	10	1	2	12	1	4	8	3	45

NOTE: W = Working Class

M = Middle Class

U = Upper Class

TABLE 61

RESPONDENT CATEGORY BY STATUS CONSISTENCY/
INCONSISTENCY AND FREQUENCY OF CONTACT

FREQUENCY OF CONTACT	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	STATUS		STATUS		STATUS		
	C	M	C	M	C	M	
0- 5	7	1	6	0	7	1	22
6-10	4	1	5	1	1	0	12
11-15	1	1	1	1	2	0	6
16-20			1	0	1	2	4
21-25					1	0	1
26+							0
TOTAL	12	3	13	2	12	3	45

NOTE: C = Consistent

M = Marginal

TABLE 62
RESPONDENT CATEGORY BY GEOGRAPHICAL MOBILITY
AND FREQUENCY OF CONTACT

FREQUENCY OF CONTACT	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	MOBILITY			MOBILITY			MOBILITY			
	L	M	H	L	M	H	L	M	H	
0- 5	2	2	4	3	2	1	2	3	3	22
6-10	2	1	2	2	2	2	1	0	0	12
11-15	1	0	1	1	1	0	0	0	2	6
16-20				0	0	1	3	0	0	4
21-25							0	0	1	1
26+										0
TOTAL	5	3	7	6	5	4	6	3	6	45

NOTE: L = Low
M = Medium
H = High

TABLE 63

RESPONDENT CATEGORY BY PLACE OF BIRTH AND
FREQUENCY OF CONTACT

FREQ- UENCY OF CONTACT	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	BIRTHPLACE		BIRTHPLACE		BIRTHPLACE		
	U	R	U	R	U	R	
0- 5	4	4	3	3	5	3	22
6-10	3	2	4	2	1	0	12
11-15	0	2	1	1	1	1	6
16-20	X		0	1	1	2	4
21-25			X		0	1	1
26+					X		0
TOTAL	7	8	8	7			8

NOTES: U = Urban

R = Rural

TABLE 64

RESPONDENT CATEGORY BY AREA WHERE RESPONDENT
GREW UP AND FREQUENCY OF CONTACT

FREQUENCY OF CONTACT	RESPONDENT CATEGORY						TOTAL
	PURE AFRIKANER		ANGLICIZED		MARGINAL		
	AREA		AREA		AREA		
	U	R	U	R	U	R	
0- 5	5	3	6	0	5	3	22
6-10	3	2	4	2	0	1	12
11-15	1	1	1	1	1	1	6
16-20	X		0	1	3	0	4
21-25	X		X		1	0	1
26+	X		X		X		0
TOTAL	9	6	11	4	10	5	45

NOTES: U = Urban

R = Rural

up in rural areas, both within and across respondent-categories, reveals that low and high frequencies of contact are present in both groups. The above observations support the conclusion that background characteristics have no significant bearing on the frequency of interaction between anchorpoints and their first-order contacts. The frequency of contact, along with the other network characteristics identified earlier, are, therefore, considered to be an important aspect of ego's reaction to the contact situation.

Having eliminated the possibility that background characteristics may be largely responsible for variations in the frequency of contact we consider, next, the possible impact of network size and network scatter on the frequency of contact.

The data in Table 65 reflect a slight tendency for the frequency of contact to increase as the size of the network decreases and vice versa (r for grouped data = - 0,18). This trend is evident within and across respondent-categories. Only in one instance where we have a large (11-20) social network does the frequency of interaction exceed ten per month. In other words, the great majority (11 out of 12) of all respondents with large (11-20) social networks interact with the members of their first-order stars, on average, no more than ten times per month. Equally significant is the fact that most (4 out of 5) respondents with very large social networks (16-20) interact with their first-order contacts, on average, less than six times per month.

The inverse relationship between network size and frequency of contact in conjunction with the inverse relationship between network

TABLE 65

RESPONDENT CATEGORY BY NETWORK SIZE
AND FREQUENCY OF CONTACT

RESPONDENT CATEGORY	NETWORK SIZE	FREQUENCY OF CONTACT						TOTAL
		0- 6	6- 10	11- 15	16- 20	21- 25	26+	
Pure Afrikaner	0- 5	2	1	1				4
	6-10	2	1	1				4
	11-15	1	3	0				4
	16-20	3	0	0				3
Anglicized	0- 5	2	0	1	0			3
	6-10	3	4	1	1			9
	11-15	1	1	0	0			2
	16-20	0	1	0	0			1
Marginal	0- 5	4	0	0	3	0		7
	6-10	3	1	1	0	1		6
	11-15	0	0	1	0	0		1
	16-20	1	0	0	0	0		1
TOTAL		22	12	6	4	1		45

size and marginality explain, at least in part, why the frequency of contact increases as the marginality of an ego increases. However, because the above-mentioned inverse relationships are not perfect, we continue our exploration of the data for a fuller explanation of the link between marginality and frequency of contact.

In addition to network size it seems likely that network scatter may also influence the frequency of contact. To see whether or not this is the case we cross-classify respondent-category by geographical distribution of first-order star and frequency of contact. The results are summarized in Table 66. An examination of the data reveals a very slight tendency for the frequency of contact to decrease as the geographical distribution of ego's first-order star increases (Cramer's $V = 0,24$). We note, for example, that a very low frequency of contact (0-5) is recorded for more than two-thirds (8 out of 11) of all networks with a large first-order scatter. Also significant is the finding that in only one instance where we have a large scatter network does the frequency of contact exceed ten. Considering small scatter networks we observe that a frequency of contact exceeding ten is recorded for ten or almost a third of all small scatter networks. The latter group includes five respondents who reported very high (16-25) frequencies of interaction. These findings support the conclusion that there is an inverse relationship between the frequency of interaction and network scatter. Add to this our earlier conclusion concerning the inverse relationship between network scatter and marginality and together they enable us to explain, at least in part, why the frequency of interaction increases as marginality increases.

TABLE 66

RESPONDENT CATEGORY BY GEOGRAPHICAL DISTRIBUTION
OF FIRST-ORDER STAR AND FREQUENCY OF CONTACT

FREQ- UENCY OF CONTACT	RESPONDENT CATEGORY									TOTAL
	PURE AFRIKANER			ANGLICIZED			MARGINAL			
	SCATTER			SCATTER			SCATTER			
	S	M	L	S	M	L	S	M	L	
0- 5	2	0	6	4	1	1	7	0	1	22
6-10	3	0	2	5	1	0	1	0	0	12
11-15	2	0	0	1	0	1	2	0	0	6
16-20				1	0	0	3	0	0	4
21-25							1	0	0	1
26+										0
TOTAL	7	0	8	11	2	2	14	0	1	45

NOTE: S = Small

M = Medium

L = Large

Two further observations contribute to a better understanding of the high frequency of interaction between marginal respondents and their first-order contacts. The first of these concerns the recruitment of friends and the establishment of a friendship network. Marginal egos are, in comparison with pure Afrikaner and anglicised informants, much more inclined to have as friends the people they work with. Where this applies the result is almost daily contact. This explains some of the very high frequencies of contact reported by marginal egos. The second observation concerns the "quality of the contact" and is of necessity more "subjective" and therefore more difficult to substantiate. Despite this we believe, however, that contact between marginal egos and their friends are more superficial or shallow. Statements such as: "we don't visit friends", "we only chat at work", "I solve my own problems", and "I am independent" are, we suggest, indicative of smaller "investments" in their relationships with friends. Not only do they put very little into the relationship but they also expect to get very little out of it. Hence their references to being independent and solving their own problems. It follows that a high frequency of interaction does not necessarily imply a highly intense relationship, (see also Mitchell 1969:29). In fact it may occur in order to compensate for, or conceal, a lack of emotional involvement and commitment.

Our preceding examination of the possible influence of several factors on the frequency of contact leads to conclusions which support the inference that the observer was badly situated, given the method of data gathering, to observe certain aspects of ego's behaviour and social network. Herein lies the answer, we believe, to the question

why a wrong hypothesis was accepted in the first instance. With no or only limited access to the work situation we had no way of knowing, for example, that marginal egos are inclined to recruit a large percentage of their friends within the work context. The observer's situation-specificity, which is one of the major disadvantages of participant observation, is, as we saw earlier, also responsible for the initial lack of data regarding the geographical distribution of ego's first-order star. As such it is also partly responsible for the acceptance of a wrong hypothesis. Finally, the possibility that the observer was selective in that he recorded only certain kinds of interaction as "worthwhile contact" must be mentioned. In other words, it is possible that the observer ignored or treated as insignificant certain kinds of interaction which marginal informants, given the nature of the relationship between themselves and their friends, regarded as sufficiently important to warrant reporting.

3.2. Behaviour Patterns and Background Characteristics

There are five original and two new hypotheses included in this category. Of the original hypotheses only four are, strictly speaking, concerned with background characteristics and ego's reaction to the contact situation. Moreover, by implication all four were re-examined in the preceding sections of the present chapter. Our subsequent discussion of these hypotheses will, therefore, consist mainly of a summary and systematization of earlier conclusions.

The remaining original hypothesis deals with the link between behaviour patterns and the contact situation.

3.2.1. Hypothesis One: *Neither a high nor a low socio-economic position increases the likelihood of egos becoming anglicised*

We saw earlier (Table 21, p.202) that all three social classes or socio-economic strata are represented in all three respondent-categories. In other words, those Afrikaans-speakers who become anglicised, for example, are not restricted to a single social class but, in fact, represent in terms of socio-economic position a cross-section of all Afrikaans-speakers in the contact situation. The commonly held belief that it is predominantly working class Afrikaans-speakers who become anglicised is obviously incorrect. In short, becoming anglicised or marginal or maintaining a pure Afrikaner identity is clearly not dependent on ego's socio-economic position.

Cross-classifying social class with several network characteristics; viz. homo-/heterogeneity (Table 27), density (Table 34), multiplicity of links (Table 44), size (Table 52) and frequency of contact (Table 60), also produced negative results. Hence the conclusion that social class has no direct bearing on ego's social network.

While it is certainly true that egos recruit as friends mainly people with whom they share a common class position, it is not unusual for friendship links to cross class or stratum "boundaries". Almost half or 22 of all respondents interviewed claim to have one or more friends who belong to higher and/or lower socio-economic classes than themselves. Here the significance of social class seems limited. Social class is merely one, and not nearly always the most important one, of several things that people consider before they establish a friendship link. Among pure Afrikaner respondents, for example, home language, religious beliefs, political views, and so on, are much more important than socio-economic status.

The data at our disposal clearly indicate that, in the context of the present study, social class is neither an independent nor important intervening variable.

3.2.2. Hypothesis Two: *Anglicisation can occur without a concomitant change in political beliefs*

The data trend identified and discussed earlier (see Table 18, p.196) not only supports the original hypothesis but is in fact so prominent that we suggest the following modification of the hypothesis: *Anglicisation is very seldom accompanied by a change in political views.* The belief, so prevalent among pure Afrikaners, that anglicisation implies *ipso facto* political liberalization is, therefore, yet another popular misconception. The one change resulting in qualified support for the New Republic Party can hardly be described as political liberalization.

The data collected overwhelmingly support the above conclusions. The inference that there is no link between changing political views and becoming anglicised is, therefore, justified.

3.2.3. Hypothesis Three: *There is no relationship between the period of exposure to the contact situation and adopting a given mode of adaptation*

It was noted earlier (p.205) that, with only one exception, all respondents have been exposed to the contact situation for five or more years. The actual period of exposure varies from just over five years to more than 40 years among marginal egos, and from approximately six years to over 30 years among pure Afrikaner informants. Despite this sometimes lengthy exposure, neither the 15 pure Afrikaner egos nor the 15 marginal respondents have, to date, become anglicised. Only two respondents in the latter category entered the contact situation as

marginal egos while 13 became marginal only after entry. The time it took these informants to become marginal varies from two to three years after entering the contact situation to as long as 10, 15, 20 years and even longer.

For anglicised respondents the actual period of exposure to the contact situation varies from just under five years to well over 40 years. Two informants in this respondent-category became anglicised before settling in Durban while a third entered the contact situation as marginal egos. In other words the great majority became anglicised only after entering the contact situation. Once again the time it took to become anglicised varies greatly from one respondent to the other. In some cases the period of transition was fairly brief lasting no more than one, two or three years, while others took much longer, for example, 5, 10, 15 and more years, to acquire a new identity.

The above information clearly and convincingly supports the original hypothesis.

3.2.4. Hypothesis Four: *The urban or rural origins of egos have no direct bearing on their reactions to culture contact*

"Urban" and "rural origins" refer to two kinds of information, viz. ego's place of birth and the area where informants grew up.

With reference to birthplace, we know (see Table 13, p.190) that approximately half of all respondents, within and across respondent-categories, were born in urban areas. Against this we saw (Table 14, p.190) that approximately two-thirds of all pure Afrikaner, anglicised and marginal egos grew up in urban settings. Thus the data trend is

completely congruent with the trend predicted by the original hypothesis.

Our earlier examination of the possible impact of birthplace and areas where respondents grew up on network homo-/heterogeneity (Tables 31 and 32), network density (Tables 37 and 38), the degree of multiplexity of first-order links (Tables 47 and 48), network size (Tables 55 and 56), and the frequency of contact (Tables 63 and 64) revealed, in addition, that an urban or rural background have no great bearing on the social networks of respondents. Once again this is what we would expect given the original hypothesis.

In view of the widespread support for the hypothesis it must be accepted as confirmed.

3.2.5. *Hypothesis Five: A coextensive relationship exists between the modes of adaptation or patterns of reaction and the contact situation*

All 45 respondents grew up in homes where Afrikaans was most often used. Especially noteworthy, however, is the fact that both parents of a very large majority of informants, namely 37, also grew up with Afrikaans as home language. Against this only seven respondents (four marginal, two anglicised, and one pure Afrikaner informant) each have one parent who grew up in an Afrikaans household while both parents of one pure Afrikaner ego grew up in homes where German was most often used. It is interesting that the predominance of an Afrikaans background spanning several generations could not prevent either anglicisation or marginality.

A total of 14 respondents grew up in the contact situation. Their parents, without exception, all grew up in homes where Afrikaans

was most often used. Despite this, however, their reactions to the contact situation are very different; four being pure Afrikaners, three being marginal and seven becoming anglicised. Among those who did not grow up in Durban (31) are 29 informants who spoke mostly Afrikaans when they first came to Durban and two respondents who spoke mostly English when they first arrived in the contact situation. The former group includes 26 egos who entered the contact situation as pure Afrikaners while the remaining three respondents were already marginal on entry. Obviously the two English-speakers became anglicised before their arrival in Durban.

The 15 pure Afrikaner respondents include, in addition to the four who grew up in Durban, 11 informants who all entered the contact situation as pure Afrikaners. In passing it is interesting to note that this latter group of 11 pure Afrikaners includes one ego with a predominantly German background. Here is an example of someone who became Afrikanerised!

Considering next the 15 egos classified as "marginal" we see that this respondent-category contains, apart from the three persons who grew up in the contact situation, two individuals who were already marginal on entry and a further ten informants who entered the contact situation as pure Afrikaners but who then became marginal subsequent to their arrival in Durban.

Among the 15 anglicised respondents are seven informants who, as we saw earlier, grew up in Durban and eight egos who entered the contact situation as adults. The latter group includes: five informants who were pure Afrikaners on entry, one ego who was marginal on entry, and

two respondents who became anglicised even before coming to Durban.

Reviewing the above data we note that a total of 15 respondents (11 pure Afrikaners, two anglicised and two marginal egos) entered the contact situation without subsequently adopting another behaviour pattern. In other words, they remained pure Afrikaners, or anglicised or marginal as the case may be. In contrast, 16 respondents entered the contact situation as either pure Afrikaner- (15) or marginal (1) egos, and subsequently became anglicised. The remaining 14 respondents grew up, as we know, in the contact situation with seven becoming anglicised, three becoming marginal and four adopting modes of behaviour common among pure Afrikaners. It follows that two-thirds (30) of all respondents adopted a particular mode of behaviour in response to the contact situation while one-third or 15 of all respondents brought to the contact situation their respective modes of adaptation.

The results of our examination reflect overwhelming support for the original hypothesis. In addition to being coextensive, however, it could also be argued that a *reversible* relationship exists between the modes of adaptation and the contact situation. In other words, while ego adopts a given mode of adaptation in response to a particular contact situation the adopted mode will, in turn, shape, modify and transform, at least to a limited extent for the ego concerned, the contact situation. Thus the link between the modes of adaptation and the contact situation is best described as a reversible coextensive relationship.¹⁵⁾

3.2.6. Hypothesis Six: *Geographical mobility has no direct bearing on the modes of adaptation*

This is the first of two new hypotheses included in this

category.

We saw earlier (Table 23 p.204) that two-thirds of all pure Afrikaner egos (10) and approximately two-thirds of all anglicised (9) and marginal (9) respondents were medially to highly mobile. It is, therefore, quite clear that the informants in a given respondent-category were neither more nor less geographically mobile than the respondents in any other category.

Investigating the possible influence of geographical mobility on the relationship between respondent-category and: network homo-/heterogeneity (Table 30); network density (Table 36); the degree of multiplexity of first-order links (Table 46); network size (Table 54); and, the frequency of contact (Table 62) leads to the conclusion that varying degrees of geographical mobility have no significant bearing on the relationship between respondent-category and social network characteristics.

The new hypothesis concerning the absence of a link between geographical mobility and the modes of adaptation was first suggested by the data summarized in the above conclusions.

3.2.7. Hypothesis Seven: *Status consistency/inconsistency have no great impact on the modes of adaptation*

Our second new hypothesis to be included in this category also emanates from data presented and discussed elsewhere in the present chapter (see sections 2 and 3.1.).

The social statuses of a very large majority of respondents in all three respondent-categories are consistent. Even those respondents

with marginal social statuses (8) are almost equally distributed among the three respondent-categories (see Table 22, p.202). There is, in other words, no relationship between status consistency/inconsistency and any given mode of adaptation.

Cross-classifying social status consistency/inconsistency with respondent-category by: network homo-/heterogeneity (Table 28); network density (Table 35); the degree of multiplexity of first-order ties (Table 45); network size (Table 53); and the frequency of contact (Table 61) reveals the absence of a significant link between social status consistency/inconsistency and social network characteristics.

Once again, therefore, the data supporting the hypothesis are very convincing.

4. SUMMARY OF HYPOTHESES

In the preceding section 12 original hypotheses were re-examined in the light of additional information collected by means of an interview schedule and depth interviewing. The results of the re-examination are as follows: One, six hypotheses were confirmed and accepted in their original form. Two, two hypotheses were combined into one more inclusive hypothesis. Three, three hypotheses were reformulated; of these, two became more inclusive, while one became less inclusive. Four, and finally, only one hypothesis was rejected and replaced by a new one.

In addition seven new or novel hypotheses suggested by the new data and analysis were added to the original list of 12 hypotheses giving us a total of 19 hypotheses which we list below.

1. As the marginality of an ego increases the heterogeneity of his social network increases.
2. The social networks of pure Afrikaners are more homogeneous than the social networks of anglicised egos.
3. The social networks of male anglicised egos are more homogeneous than the social networks of female anglicised egos.
4. As the marginality of an ego increases the density of his local social network decreases.
5. As the geographical distribution of ego's first-order contacts increases the density of his social network decreases.
6. There is an inverse relationship between network size and network density.
7. As the marginality of an ego increases the multiplexity of the links of his social network decreases.
8. As the marginality of an ego increases the size of his first-order friendship network decreases.
9. As the marginality of an ego increases the durability of his social network decreases.
10. As the marginality of an ego increases the frequency of contact between him and the members of his first-order star increases.
11. As the size of a network increases the frequency of contact decreases and vice versa.
12. As the geographical distribution of ego's first-order star increases the frequency of contact decreases.

13. Neither a high nor a low socio-economic position increases the likelihood of egos becoming anglicised.
14. Anglicisation is very seldom accompanied by a change in political views.
15. There is no relationship between the period of exposure to the contact situation and adopting a given mode of adaptation.
16. The urban or rural origins of egos have no direct bearing on their reactions to culture contact.
17. A coextensive relationship exists between the modes of adaptation or patterns of reaction and the contact situation.
18. Geographical mobility has no direct bearing on the modes of adaptation.
19. Status consistency/inconsistency have no great impact on the modes of adaptation.

5. CONCLUDING REMARKS

Behind the sample results lies the question as to what we can legitimately infer from sample differences about the universe. As a basic principle one should not treat a sample as if it were a true reflection of the universe without sampling error affecting the results. What, therefore, is the importance or significance, if any, of the fact that we generalize from a sample of only 45 cases?

Despite the non-random nature and smallness of our sample we remain confident that our observations and generalizations apply to the larger universe. Our confidence stems from: One, the remarkable

consistency of the data trends. One would not expect this to be a function of chance factors operating. Two, intensive, intimate and prolonged contact with the community as a participant observer prior to our focus on the 45 sample cases resulted in observations giving the study a much broader data base supporting our generalisations. Three, the congruency of the data collected by means of two different data collection techniques.

Finally, although there may still be some lingering doubt we agree with Zetterberg (1963:41-42) that:

'Scientific advance is as much hampered by the error of rejecting something true as by accepting something false.'

In short, a false assumption that our hypotheses apply to the larger population will be no more detrimental to the advancement of science than to refrain from extending their applicability to the larger universe when, in fact, they do apply.

NOTES

1. "Cultural organizations" revolve round Afrikaner cultural values. In short, these associations are concerned with the maintenance of Afrikaner culture, sentiment and identity.
2. The following operational definitions of low, medium and high mobility were used:
 - a) low mobility = residing in not more than two places prior to settling in Durban
 - b) medium mobility = residing in 3-4 places before settling in Durban
 - c) high mobility = residing in five or more places prior to settling in Durban
3. Cramer's V is a measure of association for m x n contingency tables, which ranges from 0 to 1,00. Although Cramer's V was used in the present study as a measure of association, no tests of significance were applied because our sample is, strictly speaking, not a simple random sample.
4. Membership implies Confirmation and a consequent right to vote at church meetings. Only members may be office bearers.
5. A given score, say 70, indicates that the social network of a respondent is 70% homogeneous. Similarly, 75 would indicate that it is 75% homogeneous, and so on.
6. The geographical distribution of ego's first-order contacts, also referred to as *network scatter* in the present study, is considered to be *small* when 75% or more of these contacts reside in the greater Durban area; *medium* where between 50% and 74% live in the contact situation; and *large* where fewer than 50% reside in metropolitan Durban.
7. Respondents other than pure Afrikaners are not included in the present analysis because most of the social networks of anglicised egos (11) and marginal egos (14) have a small scatter. (See Table 40)
8. To make the table and the subsequent analysis less cumbersome we distinguish between: small and large scatter; small (0-10) and large (11-20) networks and low (0-50) and high (51-100) density scores.
9. The degree of multiplexity refers to the mean number of links of like content that ego has with his first-order contacts. Each link is, in addition, assumed to be reciprocal.

10. This conclusion is based on an examination of the social networks of the 15 pure Afrikaner respondents. Because most of the social networks of anglicised (11) and marginal (14) egos have a small scatter they are not included in the analysis.
11. Pure Afrikaner respondents reported a total of 154 first-order contacts as opposed to the 121 and 105 reported, respectively, by anglicised and marginal respondents.
12. A "new contact" is operationally defined as someone whom the respondent, at the time of the interview, has known for less than 30 months or for less than half the period of which the informant has been a resident in Durban, whichever period is the shorter of the two.
13. The 20 social networks categorized as "not durable" include: one with a durability score not exceeding 90, 12 with new first-order contacts, and seven with both new first-order members and durability scores not exceeding 90.
14. Frequency of contact = the arithmetic average of the number of times per month that ego comes into contact with the members of his/her first-order star. Contact does not necessarily imply face-to-face interaction.
15. Zetterberg (1963:16) points out that "reversible coextensive relations are often called 'functional' ones".

CHAPTER SIXSUMMARY AND CONCLUSIONS : THE AFRIKAANS-
SPEAKER IN THE CONTACT SITUATION1. INTRODUCTION

The minority status of Afrikaans-speakers living in Durban is both indisputable and "complete": they are fewer in number, their socio-economic position is less favourable and they have very little say in local government. Outside the narrow confines of the family and friendship network, church, school, and Afrikaner cultural organizations, the typical Afrikaans-speaker finds himself in a world dominated by "other" cultures. Most, if not all, secondary contact is with people from these other cultures. In the cosmopolitan atmosphere of Durban where Eastern, African and Western cultures meet one another the dominant "other cultural" influence on Afrikaans-speakers is, however, that of the white English culture.

Given their minority status all Afrikaans-speakers experience, to a greater or lesser extent, problems which inevitably affect adaptation. It is these problems that we consider very briefly in the next section.

2. "PROBLEMS" EXPERIENCED BY AFRIKAANS-SPEAKERS IN THE CONTACT SITUATION

The problems or "difficulties" encountered by Afrikaans-speakers in Durban can roughly be divided into two classes or categories, viz.

practical and social/psychological/ideological. However, these categories are not mutually exclusive, water-tight, compartments since practical problems give rise to those problems classified as social/psychological/ideological.

Considering, first, practical problems we begin our discussion with the observation that Afrikaans-speakers cannot escape the reality of the dominance of the English language. That they are aware of this; often "unhappy" about it, and sometimes even resent it, is clearly illustrated by the following comments:

"Everyone in this place ..."(i.e. Durban)"...
speaks only English"

"All you ever hear in shops, streets, in
fact all over town, is English"

"You would think that English is the only
..... language if you listen to those
around you"

For many, especially the elderly and new residents, this predominance of English creates a very real problem. This is so despite the commonly held belief that Afrikaans-speakers are bilingual. Although it is certainly true that most Afrikaans-speakers *understand* English reasonably well, many, especially those referred to earlier, often find communication with English-speakers both embarrassing and difficult because they lack the vocabulary to express themselves adequately. The inability to communicate with ease has, as we shall see, a bearing on many of the problems experienced by Afrikaans-speakers in the contact situation.

The comparatively small size of the Afrikaans-speaking community in Durban is, sometimes in conjunction with communication problems, responsible for a number of problems. The size of the local community

cannot justify, for example, more than a mere handful of Afrikaans congregations. Consequently Afrikaans-speakers rarely live as close to their church as they would normally prefer to do. Particularly affected are members of the two smaller Afrikaans Reformed Churches. For them the problem of distance between home and church is even greater. Some (often reluctantly) "solve" this problem by attending religious services at the nearest Dutch Reformed Church. Although this makes more frequent and regular attendance possible it is, however, never more than a partial solution. Given the important role of religion and the church in the lives of, especially, pure Afrikaners it is not surprising that many Afrikaans-speakers regard the distance between home and church as problematic.

Even fewer in number are Afrikaans medium schools. It follows that many Afrikaans-speakers do not reside within walking-distance of an Afrikaans medium school. An inadequate public transport system together with the fact that some of these schools are badly situated in relation to their catchment areas only serve to make matters worse. Relying on private (own) transport to convey children to and from school and school related activities, for example sport, concerts and so on, can be very costly both in terms of time and money. Organizing lift clubs (in one instance even a bus!) provides a partial solution to the problem. Unfortunately these arrangements can only work effectively when children have no, or very few, extra curricular activities. Three factors, viz. participation in extra curricular activities, being dependant on public transport and living a long distance from school, when superimposed inevitably mean that children arrive back at home very late — during the winter months perhaps even

after dark. Many parents, especially those of younger children, are concerned about this. The absence of an Afrikaans medium technical high school in Durban creates additional problems for some Afrikaans-speakers and their children.

A combination of the size of the Afrikaans-speaking community and communication problems is responsible for yet another problem commonly experienced by Afrikaans-speakers in Durban. The problem concerns the small number of Afrikaans-speaking medical doctors practising in Durban. In fact most medical and para-medical services are performed by people (i.e. doctors, specialists, dentists, nurses, physiotherapists, etc.) who speak mostly English. The small number of Afrikaans-speakers in these professions is, obviously, a function of the size of the Afrikaans-speaking community resident in the contact situation. The problem arises, however, when Afrikaans-speakers require medical services. While many regard their English as "good enough" to talk to their English-speaking neighbour or the owner of the corner Tea Room or even to the mechanic at the local garage, they lack the vocabulary and perhaps most importantly the confidence to explain to, say, a doctor, in English, the nature of their ailment.

Another problem (which also has social/political and ideological roots) often discussed by Afrikaans-speakers is the "need for a local Afrikaans daily newspaper". Although this need is mainly socially and ideologically inspired there are people who "miss something they took for granted elsewhere". Publishing a local Afrikaans daily newspaper is obviously not an economic proposition. A partial solution to "the problem" adopted by many Afrikaans-speakers is to read (mainly) Transvaal Afrikaans newspapers which are becoming increasingly available in Durban.

A small number of Afrikaans-speakers, usually pure Afrikaners who have young children, are "unhappy" about the shortage of Afrikaans-speaking music, ballet and art teachers. The argument that their children are at a disadvantage when tuition is in English has merit but again one suspects the problem is not entirely practical. It is very likely that maintaining a pure Afrikaner identity is at least as important as the educational considerations.

In so far as the above mentioned problems are "practical" they affect Afrikaans-speakers irrespective of whether they are marginal or pure. Social, psychological and ideological problems, on the other hand, are much more likely to be the concern of pure Afrikaners. Here we identify three problem areas. The first concerns the maintenance of a pure Afrikaner identity. Some feel that Afrikaans-speakers "live in a hostile environment where they are constantly in danger of losing their identities as Afrikaners". The need to be "on one's guard" is stressed. Young children in particular are "easily influenced and vulnerable and must, therefore, be guided and protected where possible". Hence the need for Afrikaans-speaking music, ballet and art teachers. The beliefs summarized above also explain why pure Afrikaners express great concern over the "large number of pupils with Afrikaans surnames studying at English medium schools". The extent of this concern is clearly illustrated by the experience of one marginal ego who was approached and admonished(!) by his "dominie" (i.e. minister of religion) for the fact that he sends his children to an English medium school. In addition it is at least partly responsible for requests to establish an Afrikaans medium university in Natal. An important dimension of this identity is a specific ideological orientation or world view. Most pure Afrikaners believe

that the maintenance of this particular ideological stance is a necessary prerequisite for Afrikaner survival; and, that both are best achieved by supporting the ruling Nationalist Party.¹⁾ Arising out of this is the need for a local Afrikaans daily newspaper which supports the Nationalist Party. The "English press" is almost without exception regarded as "biased and ready to exploit every situation in order to harm the Government". It is therefore necessary, pure Afrikaners argue, "to counteract their biased reporting".

The second problem area relates to the status of Afrikaans in the contact situation. There is a feeling, not as pervasive as ten or 15 years ago but nevertheless still present, that Afrikaans is ignored, neglected, regarded as inferior, ridiculed and sometimes even treated with contempt. Most of these accusations are levelled at the business sector. For example, shop assistants are often accused of being "unwilling, rather than unable to speak Afrikaans". To substantiate this belief one respondent referred to an incident where a shop assistant "pretended not to know what was meant by 'toiletware' despite its similar sounding English equivalent, namely 'toiletries'". Some Afrikaans-speakers also feel that it is "unfair" that they "always have to speak the other person's language" or that they have "to be more than accommodating". The same sentiment is expressed by a respondent who complained saying: "at mixed (i.e. English and Afrikaans) parties everybody always end up speaking English". On the same topic, i.e. speaking English at parties, another respondent had this to say:

'After speaking so much English my teeth are really blunt!'

A third and final problem area, identified by a small number of respondents, concerns the position of Afrikaans-speakers in the contact situation. Here the point of reference is not their "objective" minority status but rather their perception of the way Afrikaans-speakers are being treated by others, mainly white English-speakers, in Durban. Afrikaans-speakers who have lived in Durban for many years, say 15 or more, are almost unanimous in expressing the view that "Afrikaners were discriminated against in the past." In fact there are some Afrikaans-speakers who believe that this is still the case. When the Durban City Council, for example, turned down a request by a certain Afrikaans cultural organization, one of its influential members responded saying:

'What can you expect, it is an English
City Council!'

Although the statement contains no overt accusation, discriminatory behaviour is clearly hinted at. The absence of a clear, overt accusation or identification of the behaviour as discriminatory, highlights another interesting phenomenon: Afrikaans-speakers who believe that discrimination still exists are *unlikely to reveal this belief when questioned*. Evidence of its existence is, therefore, almost exclusively restricted to statements such as the one quoted above. For the researcher to become aware of it three things are necessary: a sound, thorough knowledge of Afrikaans; prolonged, direct and close contact with Afrikaans-speakers in Durban; and, luck, i.e. being at the right place at the right time. The reason for the reluctance to make public this belief, although not entirely clear, seems to be related to a perceived link between discrimination and inferiority or subjection. In short, to admit that you are being discriminated against can be

interpreted as an acknowledgement or confirmation of your inferior position.

In conclusion it is important to stress, once again, that not all Afrikaans-speakers experience all of the problems identified and discussed above. Moreover, experiencing a given problem is always a matter of degree.

3. BEHAVIOUR PATTERNS AND SOCIAL NETWORKS

Our focus has been on three behaviour patterns (also referred to as patterns of reaction or modes of adaptation) and the social networks which accompany each. The link between these patterns and social networks is highly complex mainly because it is multiplex with each strand operating on a different level of abstraction. At the lowest level of abstraction, i.e. the level of the concrete actor and his contacts, the social network provides support, making adaptation easier and less problematic, while it also creates a framework within which much of ego's behaviour takes place. At a higher level of abstraction the social network and its characteristics, both structural and interactional, become an integrated part of ego's behaviour and as such part of his reaction in the contact situation. Where this is the case it is, strictly speaking, meaningless to refer to "behaviour patterns and social networks" or "behaviour patterns and the social networks that accompany each". Finally, in so far as ego may create a network in order to maintain and preserve a given behaviour pattern the former is, obviously, the dependent variable. Once created, however, the social network has a definite bearing on ego's behaviour thus acquiring the status of independent variable. The result is a reversible relationship between behaviour pattern on the one hand and social network on the other. In the following, very brief, summary we concentrate on

the major findings relating to each of three categories of people identified as pure Afrikaners, anglicised egos and marginal egos.

There are first those people who try to isolate themselves as far as is possible from the possible influence of the dominant (English) culture in the contact situation. In order to do this they create for themselves a small world within the larger contact situation. Most, if not all, of their primary, intimate and close relations and many of their secondary relations are with people with whom they share this smaller contact situation. Those who adopt this isolationist stance see, and describe, themselves as pure or true ("suiwer" or "ware") Afrikaners. They are first and foremost concerned about maintaining their ethnic identity. This gives them a high status in their own eyes, thereby counteracting the Afrikaans-speaker's average lower social standing in the larger contact situation. Simultaneously it identifies them with others who share a similar sense of identity or feeling of belonging. It is for this reason that pure Afrikaners have, relative to, say, marginal egos, fewer problems of adaptation. On entering the contact situation, for example, it is possible to establish links with a highly visible pure Afrikaner reference group; this makes for easier adaptation by reducing exposure to the larger contact situation. It is noteworthy that the initiative to establish links may come from either side, i.e. the new resident or the pure Afrikaner community. In the latter instance, the pure Afrikaner elite plays an important role. Recruitment by them is inevitably preceded not only by an evaluation of the recruit's purity but also by an assessment of his "value" for the Afrikaner community. Only if they are satisfied on both counts will someone approach the new candidate. On recruitment a very influential member of Durban's Afrikaner elite had this to say:

'Of course we evaluate people, that is why some become friends and others not.'

The behaviour pattern of pure Afrikaners is characterized, as we saw earlier (see Chapter Five, pp.206-208), by the following: One, pure Afrikaners speak only Afrikaans at home. Two, when they get married it is usually to a fellow pure Afrikaner. Three, they are members of one of the three Afrikaans sister-churches and regular churchgoers. Four, the children of pure Afrikaners invariably attend an Afrikaans medium school. Five, pure Afrikaners support the ruling Nationalist Party. Six, given their involvement in cultural organizations and activities the pure Afrikaner may be described as a "true cultural being". While it is true that pure Afrikaners have much in common with one another, it is also true that they do not share:

1. A common class position. In other words, there are working, middle, and upper class pure Afrikaners.
2. A common rural or urban background. Although many are rural born and/or grew up in rural areas, an equally large number are urban born and/or grew up in urban areas.
3. A similar rate of geographical mobility. Whereas some are hardly mobile others are highly mobile.

Next we turn our attention to the social networks of pure Afrikaner egos. Considering, first, its morphological or structural characteristic we note the following: One, the social networks of pure Afrikaners are very homogeneous. In other words, pure Afrikaners have much in common with their first-order contacts, who are almost invariably fellow pure Afrikaners. Two, pure Afrikaners tend to

maintain ties or links established prior to settling in Durban. Consequently their social networks have a large scatter. Three, given the wide geographical distribution of first-order contacts it follows that the social networks of pure Afrikaners are relatively sparse. This does not apply, however, to their local networks which are very dense. In short, most of ego's contacts who also live within the contact situation know one another. Four, and finally, the social networks of pure Afrikaners are, relative to anglicised and marginal egos, fairly large.

Focussing, next, on the interactional characteristics of pure Afrikaner social networks we observe the following: One, the links between ego and his first-order contacts contain many strands, i.e. they are highly multiplex. In short, pure Afrikaner social networks are characterized by a high degree of multiplexity. Two, the relationships between ego and his first-order contacts are highly durable. Three, and finally, the frequency of contact between ego and his first-order contacts is, relative to anglicised and marginal egos, low.

A comparison of the social networks of Red Xhosas (Mayer:1963) and pure Afrikaner egos reveal striking similarities in density, homogeneity and multiplexity of links. The pure Afrikaner is, like his Red counterpart, a traditionalist. Maintaining his identity as an Afrikaner; Afrikaner cultural values and beliefs; and the Afrikaner way of life, is of primary importance. To this end he recruits, maintains and uses, in an *action-set* sense, his social network to create an environment which enhances the likelihood of successful

goal-attainment. Once established, however, his social network *incapsulates* (Mayer:1963) him — making it extremely difficult to deviate, albeit only slightly, from his chosen path. Thus we see that the network is at once both dependent and independent variable — dependent in that its structure is at least partially determined by ego's goals or ends, yet independent in that it influences the behaviour of ego once created.

On the continuum directly opposite pure Afrikaners are anglicised egos. In contrast to pure Afrikaners who adopt an isolationist stance, anglicised egos adopt an integrationist stance. Isolation only features in their behaviour in so far as they erect barriers between themselves and their former fellow Afrikaans-speakers. Often their Afrikaans background is a closely guarded secret. Erecting barriers can only be successful, however, if it is accompanied by a severance of old ties and the creation of new ones. The strategies adopted by recruiting egos can be quite innovative: one anglicised ego, for example, recruited a "new network" by joining a commune, while another established new relationships by joining a rugby club. "Typical" Afrikaans surnames are one source of embarrassment, especially among the children of anglicised parents. This is one of the few problems experienced by anglicised egos as a result of their Afrikaans backgrounds.

The behaviour pattern of anglicised egos (see also Chapter Five, pp.208-209) is characterized by the following: one, they speak only English at home in spite of the fact that they and/or their parents grew up in homes where Afrikaans was most often used. Two, when they get married it is often to an English-speaker. However, the marriage

is not always a true "mixed marriage". For example, of the 13 anglicised respondents who married English-speakers (see Table 24, p.205), almost two-thirds or eight were anglicised and therefore spoke mostly English *prior* to their marriage. Thus we have a marriage between two English-speakers rather than a mixed marriage. Also noteworthy is the fact that three of the eight respondents mentioned above, plus an additional three anglicised respondents (N = 6) married second generation, anglicised spouses. Once again, therefore, we do not have a genuine mixed marriage. It follows that only two of the 13 marriages can legitimately be described as "mixed". Three, although they are not regular churchgoers, anglicised egos tend to be adherents of one of the English Protestant churches. Four, the children of anglicised egos usually attend English medium schools. Five, like their pure Afrikaner counterparts anglicised egos are likely to support the Nationalist Party. As noted earlier, this is the one link that has not been severed in the process of becoming anglicised. Six, and finally, unlike pure Afrikaners, anglicised egos are likely to be members of social clubs rather than members of cultural organizations.

Anglicised egos do not share: a common class position; a common rural or urban background; and, they are not more or less geographically mobile than non-anglicised egos.

Turning to the social networks of anglicised egos we consider, first, its morphological characteristics. We note the following: one, the social networks of anglicised egos are very homogeneous. Two, the great majority of their first-order contacts reside within the contact situation. In other words, the social networks of anglicised egos have a small scatter. Three, relative to pure Afrikaners

and marginal egos, the social networks of anglicised egos are highly dense. In short, most of their first-order contacts know one another. Four, the social networks of anglicised egos are larger ($\bar{x} = 8,1$) than those of marginal egos ($\bar{x} = 6,9$), yet smaller than the social networks of pure Afrikaners ($\bar{x} = 10,3$).

With reference to the interactional characteristics we observe the following: one, the degree of multiplexity of the links between anglicised egos and their first-order contacts are relatively high. Two, relationships between anglicised egos and their first-order contacts are less durable than the links between pure Afrikaers and their first-order contacts, yet more durable than the links between marginal egos and their first-order contacts. Three, and finally, the frequency of contact between anglicised egos and the members of their first-order stars ($\bar{x} = 6,68$) is higher than the frequency of contact between pure Afrikaner egos and their first-order contacts ($\bar{x} = 4,82$), yet lower than the frequency of contact between marginal egos and the members of their first-order stars ($\bar{x} = 8,04$).

A comparison of the social networks of pure Afrikaners and anglicised egos reveal both similarities and differences. Similarities exist with regard to: (local) network density; multiplexity; and homogeneity. Differences exist in that the social networks of anglicised egos have a smaller geographical scatter, they are less durable, their first-order stars are smaller and the frequency of contact between ego and his first-order contacts are higher. Can these differences be explained? We believe they are due to, and thus reflect, two different positions with regard to goal-attainment. In

the one instance we have a situation of successful and complete goal-attainment, i.e. a firmly established identity as a pure Afrikaner, and hence the need merely to maintain the *status quo*, while in the other goal-attainment is still incomplete given the fact that most anglicised egos are still striving to establish a new identity. Their social networks, therefore, reflect the process of creating and maintaining a *new* identity. The creation of such a new identity demands the severing of links with the past, hence the small scatter of the new network. A feeling of insecurity, resulting from the severing of old ties and the establishment of new ones, may explain the higher frequency of contact between the recruiting ego and his new first-order contacts. The smaller first-order star and less durable nature of the social networks of anglicised egos is most probably a function of its relative newness.

Unlike pure Afrikaners, anglicised egos are not incapsulated by their social networks. The absence of incapsulation among both anglicised egos, who are oriented to the dominant English cultural majority, and School Xhosas (Mayer:1963), who have adopted the dominant urban way of life; and its presence among pure Afrikaners, a cultural minority, and Reds, a *rural* oriented minority²⁾ within a dominant *urban* setting, suggest the possibility that *incapsulation is much more likely to occur among minorities*. However, further research is needed to confirm this tentative hypothesis.

The marginal ego occupies a position on a continuum somewhere between the pure Afrikaner and the completely anglicized ego. According to M.M. Gordon (1964:56):

"The marginal man is the person who stands on the borders or margins of two cultural worlds but is fully a member of neither."

Gordon's definition of the marginal man as someone who straddles a boundary between two cultures, is a very apt description of an ego occupying the midpoint on the continuum referred to above. It must be remembered, however, that marginality is always a matter of degree. Movement towards the midpoint represents an increase in marginality while movement towards either polar-type represents, by definition, a decrease in marginality. As noted earlier (see Chapter Five, p.210) our focus has been on marginal egos who speak mainly Afrikaans at home.

As Afrikaans-speakers marginal egos face many of the problems experienced by pure Afrikaners. In addition, however, they also experience problems in so far as pure Afrikaners discriminate against them or treat them with contempt. In the eyes of pure Afrikaners, marginal and anglicised egos are heretics and renegades. However, marginal egos, because of their "greater visibility" are much more likely to experience the wrath of the pure Afrikaner. Commenting on this aspect of the behaviour of pure Afrikaners, one pure Afrikaner(!) described the Afrikaner in Durban as: "a group of terrorists".

The absence of clear trends with regard to: the language of ego's spouse prior to the marriage; the language of the school attended by ego's children and the language medium of ego's church, are indicative of three important differences in the behaviour patterns of individual marginal egos. Thus: one, marginal egos may marry either Afrikaans- or English-speakers. Two, although they are members of (or claim to be members of) a Protestant church, the language medium of the church may be either Afrikaans or English. Three, their children may attend Afrikaans- and/or English medium

schools. One ego and her husband have an interesting arrangement whereby their daughters attend English medium schools, while their sons attend Afrikaans medium schools. Another ego, whose child attends a dual medium school, insists that the language medium through which the child is being educated, i.e. English or Afrikaans, be changed every year.

Also noteworthy are the following: One, marginal egos share with one another, pure Afrikaners and anglicised egos, common political views in so far as they are all likely to support the ruling Nationalist Party. Two, unlike their pure Afrikaner and anglicised counterparts there is no distinct trend observable as far as membership of cultural and/or social clubs or organizations are concerned. Three, marginal egos are, similar to pure Afrikaners and anglicised egos, not confined to one social class. Four, marginal egos do not share common urban or rural backgrounds. Five, and finally, some marginal egos are highly mobile, geographically speaking, while others are hardly mobile. In short, they are not more or less geographically mobile than either pure Afrikaners or anglicised egos.

Focussing on the morphological characteristics of the social networks of marginal egos we observe: One, that their social networks are very heterogeneous in contrast to the social networks of pure Afrikaners and anglicised egos which are very homogeneous. Two, like anglicised egos but unlike pure Afrikaners, the social networks of marginal egos have a small scatter. Most of their first-order contacts reside in Durban; often within five kilometres of the anchorpoint. Three, the social networks of marginal

egos are, as a rule, not very dense. Four, their social networks are, also, relative to the social networks of pure Afrikaners and anglicised egos, fairly small.

Considering the interactional characteristics of the social networks of marginal egos we note the following: One, although the links between marginal egos and their first-order contacts are multiplex, the degree of multiplexity is, in contrast to the degree of multiplexity of the links between pure Afrikaners or anglicised egos and their first-order contacts, much smaller. Two, the relationships between marginal egos and their first-order contacts are less durable than the corresponding links between either pure Afrikaners or anglicised egos and their contacts. Three, the frequency of contact between egos and their first-order contacts are highest among marginal egos.

The question why some egos adopt an integrationist stance or become anglicised, while others opt for a isolationist stance and strive to maintain their identity as pure Afrikaners, remains largely unanswered. In fact, an adequate answer (or more likely answers) would require much further research, asking perhaps very different kinds of questions. Moreover, because the concept or notion "identity" is, for example, highly complex, including a number of different dimensions, it is doubtful whether a single discipline, let alone a single perspective within a given discipline, could study it adequately. What is called for is an interdisciplinary approach, or team effort by, among others, sociologists and psychologists.

Here, constrained by the limitations of our theoretical perspective and research design, we can only suggest some tentative answers to the question raised above. Our observations suggest that the different patterns of response, i.e. pure Afrikaner, marginal and anglicised, are determined, at least in part, by the frequency (including regularity) of contact and the nature of the contact between ego and members of the dominant English culture. These two variables cross-cut each other giving us the following four-fold classification of the kinds of contact:

FREQUENCY AND REGULARITY OF CONTACT	NATURE OF CONTACT	
	PRIMARY	SECONDARY
SYSTEMATIC (FREQUENT AND REGULAR)		
EXCEPTIONAL (INFREQUENT AND IRREGULAR)		

Systematic and primary contact enhances the possibility of ego becoming anglicised, while its logical opposite, exceptional and secondary contact, increases the likelihood of ego maintaining his identity as a pure Afrikaner. Among marginal egos the kinds of contact with members of the dominant culture are likely to be systematic secondary - and exceptional primary contact. In tabular form the preceding information can be summarized as follows:

KINDS OF CONTACT	LIKELY PATTERN OF RESPONSE
SYSTEMATIC PRIMARY	ANGLICISED
SYSTEMATIC SECONDARY	MARGINAL
EXCEPTIONAL PRIMARY	MARGINAL
EXCEPTIONAL SECONDARY	PURE AFRIKANER

Oosthuizen's (1976) study of acculturation among Whites on the Witwatersrand lends additional support to the above argument. According to him the following factors have a causal bearing on acculturation: One, Opportunities for culture contact (pp.15-16). Two, Intimate daily contact (p.16). Three, Residential mobility within the contact situation (p.18). Four, Kinship ties crossing the "language barrier" (p.22). Five, A belief that a particular culture is superior (p.24). Six, Social visits across the "language barrier" (p.39). Seven, Where certain advantages, for example, increased employment opportunities, accompany acculturation (p.48). Eight and finally, the language most often used at work and the work milieu (p.48ff). Obviously the factors identified by Oosthuizen do not operate in isolation. Residential mobility within the contact situation, social visits and kinship ties crossing the language barrier and the work environment, for example, all contribute to more opportunities for culture contact. Similarly, if a given

culture is regarded as superior, then adopting that culture must almost inevitably result in social, psychological and/or economic advantages for the new convert. It could be argued that six of the eight factors listed above refer to the frequency (and regularity) and/or kind of contact between ego and members of the dominant culture. The exceptions are, first, the belief that a given culture is superior and, secondly, the advantages, real or imagined, which flow from becoming acculturated. It is interesting to note that in the present study although no respondent mentioned the "superior status of the English culture" as a contributing factor in his or her anglicisation, a number of respondents nevertheless expressed the belief that the "former lower status of Afrikaans" may be responsible for some instances of anglicisation in the past. Also noteworthy is the fact that only one respondent (see: Ego C, Chapter Four), in talking about the reasons why his father sent him to an English medium school and his subsequent anglicisation, referred to a perceived advantage associated with anglicisation. Moreover, he became anglicised many years ago. The conclusion that neither notions of a superior culture nor anticipated advantages are likely to play highly significant roles in present or future anglicisation in the contact situation, therefore, seems justified.

Obviously a given pattern of response may be due to any one, or any combination of, a variety of factors. In short, no single factor can be elevated to the status of being both necessary *and* sufficient.

4. CONCLUDING REMARKS

Our study clearly indicates that Afrikaans-speakers differ significantly in their reactions to culture contact. Moreover, these reactions are clearly reflected in their social networks. However, even if the previous two statements are true, someone is bound to ask the question: So what? To put this differently: What is the value of a single study of a given minority group in a single contact situation? We believe that our study is neither situation-nor group-specific in that it is likely that other minorities would react in similar ways to other instances of culture contact.

In short, it is extremely unlikely that the opposite of our working hypotheses would apply to other situations at other times. A rather tentative and unsystematic exploratory study of egos with a German (three), Spanish (two) and French (two) background has failed to produce conflicting results. We, therefore, argue that this study contributes to a better understanding of minority reactions in all situations of culture contact. However, one important factor not considered in this study is, for obvious reasons, the possible relationship between the size of the minority and the reactions of its members to culture contact. One possibility that suggests itself is that reactions are likely to be less extreme once a given size is reached. Other factors that may have a bearing on minority reactions include: their concern with the maintenance of a particular identity; the extent to which they define and experience the social environment as hostile; the status of the dominant culture relative to the status of their own cultures; and so on.

The study also includes a modest attempt to contribute conceptually, theoretically and methodologically to the development of the social network approach.

According to Merton (1967:169) conceptual clarification is a "frequent result of empirical research". He writes:

"..... a basic requirement of research is that the concepts, the variables, be defined with sufficient clarity to enable the research to proceed,....."

(Merton 1967:169)

Thus it is often a function of research to clarify highly theoretical concepts. The present study, we believe, has made a small, yet significant, contribution to the conceptual apparatus of the social network approach by : One, clarifying some of its concepts, notably the concept *range*. As used by Wheeldon (1969:133) the concept contains two dimensions which, as we saw, may vary independently of one another. As such it is not very useful to the researcher. To overcome this problem it was suggested that the concept be replaced by two terms, viz. *homo-heterogeneity* and *size*, where each indicates one of the dimensions formerly included under this one concept. In the study under consideration these two concepts were used to indicate different morphological characteristics of the social networks of egos. The notion of *directionality* was made more meaningful, we believe, by referring to a relationship as "focussed" rather than as "unidirectional". Two, expanding the conceptual framework thereby making it more inclusive. Here the most significant additions have been the concepts *segmental network* and *network scatter*. The former, i.e. segmental network, was introduced as a result of

clarifying the concept "partial network" while the latter concept, i.e. network scatter, was introduced in order to deal with an aspect of social networks for which no suitable term existed. Three, establishing some empirical links between key concepts. As noted earlier (see Chapter Two, p.38) a theory of social networks will depend to a large extent on our ability to establish relationships between the various key concepts so that we can develop a system of interrelated and interdependent concepts. The links between for example, density and network scatter or network density and network size, uncovered in this study is a small step, we believe, towards such an integrated conceptual framework.

The study's theoretical significance is to be found in: One, its conceptual contribution discussed above; and two, the list of interrelated propositions arising out of the research. These propositions are, we suggest, more than mere empirical generalizations, hence its theoretical significance for a theory of social networks.

Methodologically the study's contribution is twofold. First, it includes a fairly detailed discussion of the most important methodological problems faced by social network researchers (see Chapter Three). More important, however, is the fact that it also contains possible solutions for the problems experienced by researchers in the field. Secondly, the study demonstrates quite conclusively the superiority of triangulation or methodological pluralism, which in recent sociological literature on methodology is stressed as a highly desirable step to counteract

the limitations of using only a single approach such as for instance participant observation, or a social survey, which has characterized nearly all sociological research in the post World War II era. In the present study, for example, the researcher's situation-specificity, resulting from the use of participant observation, led to a wrong hypothesis because of insufficient data. Had it not been for the additional use of interviews this error would not have been detected.

In conclusion a brief reference to the interaction between theory, method and substance is necessary. Our study clearly demonstrates that specific methods produce specific types of data; that new information can, in turn, prompt the development of new hypotheses; and, that the latter may impel the scientist to seek new methods of testing. In short, there is neither beginning nor end to the interaction between theory, method and subject matter.

NOTES

1. Recent developments in the Nationalist Party, for example the new sport policy, have led to some misgivings as to the intention of the Government.
2. In the present context Reds constitute a minority in that they reject the urban way of life dominant in East London.

APPENDIX AUNIVERSITY OF NATAL, DURBAN
UNIVERSITEIT VAN NATAL, DURBANDEPARTMENT OF SOCIOLOGY
DEPARTEMENT VAN SOSIOLOGIECULTURE CONTACT SURVEY
KULTUUR KONTAK ONDERSOEKSTRICTLY CONFIDENTIALSTRENG VERTROULIKQUESTIONNAIRE NO.
VRAELYS NO.

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1-3

1. HOME LANGUAGE/
HUISTAAL

1.1. Language most often used in the home of the respondent/

Taal meeste gebesig in huis van respondent.

ENGLISH/ ENGELS	AFRIKAANS	BOTH/ BEIDE

1.2.1. Language most often used in the home where the respondent grew up/

Taal meeste gebesig in huis waarin respondent opgegroeï het.

ENGLISH/ ENGELS	AFRIKAANS	BOTH/ BEIDE	OTHER/ ANDER

1.2.2. Language most often used in the home where the spouse grew up/

Taal meeste gebesig in huis waarin huweliksmat van respondent opgegroeï het.

ENGLISH/ ENGELS	AFRIKAANS	BOTH/ BEIDE	OTHER/ ANDER	NOT APPLICABLE

- 1.3.1.1. Language most often used in the home where the father of the respondent grew up/

Taal meeste gebesig in die huis waarin die vader van die respondent opgegroeï het.

ENGLISH/ ENGELS	AFRIKAANS	BOTH/ BEIDE	OTHER/ ANDER

- 1.3.1.2. Language most often used in the home where the mother of the respondent grew up/

Taal meeste gebesig in die huis waarin die moeder van die respondent opgegroeï het.

ENGLISH/ ENGELS	AFRIKAANS	BOTH/ BEIDE	OTHER/ ANDER

- 1.3.2.1. Language most often used in the home where the father of the spouse grew up/

Taal meeste gebesig in die huis waarin die vader van die huweliksmat van die respondent opgegroeï het.

ENGLISH/ ENGELS	AFRIKAANS	BOTH/ BEIDE	OTHER/ ANDER	NOT APPLICABLE

- 1.3.2.2. Language most often used in the home where the mother of the spouse grew up/

Taal meeste gebesig in die huis waarin die moeder van die huweliksmat van die respondent opgegroeï het.

ENGLISH/ ENGELS	AFRIKAANS	BOTH/ BEIDE	OTHER/ ANDER	NOT APPLICABLE

2. RELIGIOUS AFFILIATION
KERKVERBAND

AFRIKAANS PROTESTANT	
ENGLISH/ENGELS PROTESTANT	
AFRIKAANS CATHOLIC AFRIKAANS KATOLIEK	
ENGLISH CATHOLIC ENGELS KATOLIEK	
OTHER/ANDER SPECIFY/DUI ANN	
NONE/GEEN	

3. Language medium of school of child or children of respondent/
Taalmedium van skool van kind of kinders van respondent.

ENGLISH/ ENGELS	AFRIKAANS	OTHER/ ANDER	N/A N.V.T.

4.1. Socio-cultural organizations to which the respondent belongs
(specify)/

Sosiaal-kulturele organisasies waarvan respondent lid is
(spesifiseer)

.....

.....

.....

.....

.....

.....

- 4.2. Socio-cultural organizations of which the respondent is an office bearer/

Sosiaal-kulturele organisasies waarvan die respondent 'n ampsdraer is.

Specify/Spesifiseer

.....

5. Political party supported by respondent/

Politieke party ondersteun deur respondent.

NATIONAL PARTY/NASIONALE PARTY (N.P.)	
NEW REPUBLIC PARTY/NUWE REPUBLIKEINSE PARTY (N.R.P.)	
PROGRESSIVE FEDERAL PARTY/PROGRESSIEWE FEDERALE PARTY (P.F.P.)	
HERSTIGTE NATIONAL PARTY/NASIONALE PARTY (H.N.P.)	
OTHER/ANDER (SP.:.....)	
NONE/GEEN	

6. IDENTITY
IDENTITEIT

AFRIKANER	SOUTH AFRICAN/ SUID-AFRIKANER	ENGLISH SPEAKER/ ENGELS SPREKEND	OTHER/ANDER NO INFORMATION GEEN INLIGTING

7. Period resident in Durban/

Tydperk Woonagtig in Durban: Specify/Dui aan:.....

M O N T H S / M A A N D E					
0-11	12-23	24-35	36-47	28-59	60+

8.1. Birthplace of Respondent
Geboorteplek van Respondent

Specify/Spesifiseer

8.2. Area where respondent grew up
Gebied waar respondent opgegroeï het

Specify/Spesifiseer

8.3. Migratory Pattern
Migrasie Patroon

Specify chronologically/

Spesifiseer kronologies

.....
.....
.....
.....
.....
.....

9. Income

RANDS PER MONTH/RAND PER MAAND	
0-599	
600-1199	
1200+	

10.1. Occupation
Beroep

Specify/Spesifiseer:

10.2. Employer
Werkgever

Specify/Spesifiseer:

11. Education
Opleiding

Specify/Spesifiseer:

APPENDIX B

SOCIAL NETWORKFIRST-ORDER ZONE : DENSITY

EGO	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
A	—																			
B		—																		
C			—																	
D				—																
E					—															
F						—														
G							—													
H								—												
I									—											
J										—										
K											—									
L												—								
M													—							
N														—						
O															—					
P																—				
Q																	—			
R																		—		
S																			—	
T																				—

1 = link
 2 = no link
 3 = does not know

APPENDIX C

SOCIAL NETWORK

FIRST-ORDER STAR: CONTENT; HETERO-HOMOGENEITY; FREQUENCY;
DURABILITY; SOCIO-ECONOMIC POSITION.

FIRST-ORDER CONTACT	HOME LANGUAGE	RELIGION	LANGUAGE MEDIUM OF CHURCH	SCHOOL ATTENDED BY OLDEST CHILD	LANGUAGE MEDIUM OF SCHOOL OF OLDEST CHILD	POLITICAL VIEWS	MEMBERSHIP OF SOCIO-CULTURAL ORGANIZATIONS	RECREATIONAL ACTIVITIES	SPATIAL DISTANCE KM.	KNOWN TO EGO: MONTHS	FREQUENCY OF CONTACT PER MONTH	INCOME	OCCUPATION	EDUCATION	OTHER THINGS IN COMMON: SPECIFY	
A																
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																

BIBLIOGRAPHY

- ALDOUS, Joan and STRAUS, Murray A.: "Social Networks and Conjugal Roles: A Test of Bott's Hypothesis, *Social Forces*, Vol.44, No.4, June 1966, pp.576-580.
- ARCHIBALD, Drew: "The Afrikaners as an Emergent Minority", *The British Journal of Sociology*, Vol.XX, No.4, December 1969, pp.416-425.
- ARCHIBALD, Drew: "A Reply to 'An Alternative View'", *The British Journal of Sociology*, Vol.XXII, No.2, June 1971, pp.206-208.
- ARGYLE, W.J.: "A Critique of One Rural-Urban Dichotomy". Paper read at the second Congress of A.S.S.A. held in Lourenco Marques, 28th June-2nd July 1971.
- ARONSON, Dan R.: "Social Networks: Towards Structure or Process?", *The Canadian Review of Sociology and Anthropology*, Vol.7, No.4, 1970, pp.258-268.
- BAILEY, Kenneth D.: *Methods of Social Research*, The Free Press, New York, 1978.
- BANCK, Geert A.: "Network Analysis and Social Theory" in Boissevain and Mitchell, 1973, pp.37-43.
- BANTON, Michael: *The Social Anthropology of Complex Societies*, Tavistock Publications, London, 1966.
- BARNES, J.A.: "Networks and Political Process" in Mitchell, J.C.(Ed.), *op.cit.*, 1969, pp.51-76.
- BARNES, J.A.: "Class and Committees in a Norwegian Island Parish", *Human Relations*, Vol.7, 1954, pp.39-58.
- BARNES, J.A.: *Social Networks*, Addison-Wesley Module in Anthropology, Module 26, 1972, pp.1-29.
- BECKER, Howard S.: "Problems in the Publication of Field Studies" in Bynner, John and Stribley, Keith M.(Eds.): *op.cit.*, 1979, pp.325-340.
- BELL, Colin and NEWBY, Howard (Eds.): *Doing Sociological Research*, George Allen and Unwin, London, 1977.
- BELL, Colin and NEWBY, Howard: "Introduction: The Rise of Methodological Pluralism in Bell, Colin *et al.*: *op.cit.*, 1977, pp.9-29.
- BERKOWITZ, Stephen D., CARRINGTON, Peter J., KOTOWITZ, Yehuda, WAVERMAN, Leonard: "The Determination of Enterprise Groupings Through Combined Ownership and Directorship Ties", *Social Networks*, Vol.1, No.4, May 10, 1979, pp.391-413.

- BESHES, James M. and LAUMANN, Edward O.: "Social Distance: A Network Approach", *American Sociological Review*, Vol.32, No.2, April 1967, pp.225-236.
- BLOK, Anton: "Coalitions in Sicilian Peasant Society" in Boissevain and Mitchell, 1973, pp.151-165.
- BOISSEVAIN, Jeremy and MITCHELL, J. Clyde (Eds.): *Network Analysis: Studies in Human Interaction*, Mouton and Co., The Hague, 1973.
- BOISSEVAIN, Jeremy: "An Exploration of Two First-Order Zones" in Boissevain and Mitchell, 1973, pp.125-148.
- BOSWELL, D.M.: "Personal Crises and the Mobilization of the Social Network" in Mitchell, J.C.(Ed.), 1969, pp.245-296.
- BOTT, Elizabeth: *Family and Social Network: Roles, Norms, and External Relationships in Ordinary Urban Families*, Tavistock Publications, London, Second Edition, 1971.
- BURT, Ronald S.: "Stratification and Prestige Among Elite Experts in Methodological and Mathematical Sociology Circa 1975", *Social Networks*, Vol.1, No.2, November 24, 1978, pp.105-158.
- BURT, Ronald S.: "A Structural Theory of Interlocking Corporate Directorates", *Social Networks*, Vol.1, No.4, May 10, 1979, pp.415-435.
- BYNNER, John and STRIBLEY, Keith M.(Eds.): *Social Research: Principles and Procedures*, The Open University Press, London, 1979.
- CARTWRIGHT, Dorwin and Harary, Frank: "Structural Balance: A Generalization of Heider's Theory" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.9-25.
- CHAPPLE, Eliot D. (with the collaboration of Conrad M. Arensberg): "Measuring Human Relations: An Introduction to the Study of the Interaction of Individuals", *Genetic Psychology Monographs*, Vol.22, No.1, February, 1940.
- CHATTERJEE, Mary: "Conjugal Roles and Social Networks in an Indian Urban Sweeper Locality", *Journal of Marriage and the Family*, Vol.39, No.1, February 1976, pp.193-202.
- CHRISMAN, Noel J.: "Situation and Social Network in Cities", *The Canadian Review of Sociology and Anthropology*, Vol.7, No.4, 1970, pp.245-257.
- CICOUREL, Aaron V.: *Method and Measurement in Sociology*, The Free Press of Glencoe, New York, 1964.
- CILLIERS, S.P. (Compiler): *Wes-Kaapland: 'n Sosio-Ekonomiese Studie*, Kosmo Uitgewery (Edms.) Bpk., Stellenbosch, 1964.

- CILLIERS, S.P. (Compiler): *Assosiasie met die Bantoe: Kontak en Assosiasie van Kleurling met Bantoe*. Study by A.S. du Toit summarized by the compiler of the report, in Cilliers, S.P. (Compiler): *op.cit.*, 1964.
- CLOSE, M.E.: *Die meting van Maatskaplike Status en Statuskongruensie: 'n Skaal gebaseer op Sensusgegevens*, Unpublished M.A. thesis, University of Stellenbosch, Stellenbosch, 1968.
- CLOSE, M.E.: "Culture Contact: The Afrikaner as a Minority in Durban". Paper presented at the 10th Annual Congress of A.S.S.A., Maseru, Lesotho, 26th-28th June 1979.
- CLOSE, M.E., KINLOCH, G.C. and SCHLEMMER, L.: "The Afrikaners as an Emergent Minority: An Alternative View", *The British Journal of Sociology*, Vol.XXII, No.2, June 1971, pp.200-205,
- COHEN, Jere: "Socio-Economic Status and High-School Friendship Choice: Elmtown's Youth Revisited", *Social Networks*, Vol.2, No.1, November 15, 1979, pp.65-74.
- COLEMAN, J., KATZ, E., MENZEL, H.: "The Diffusion of an Innovation Among Physicians", *Sociometry*, Vol.20, December 1957, pp.253-270.
- COLEMAN, JAMES, KATZ, Elihu, MENZEL, Herbert: "The Diffusion of an Innovation Among Physicians" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.107-124.
- COOMBS, Gary: "Opportunities, Information Networks and the Migration-Distance Relationship", *Social Networks*, Vol.1, No.3, February 23 1979, pp.257-276.
- COOMBS, Gary: "Networks and Exchange: The Role of Social Relationships in a Small Voluntary Association", *Journal of Anthropological Research*, Vol.29, No.2, 1973, pp.96-112.
- CRANE, Diana: "Social Structure in a Group of Social Scientists: A Test of the 'Invisible College' Hypothesis" in Leinhardt, S.(Ed.) *op.cit.*, 1977, pp.161-178.
- CUBITT, Tessa: "Network Density Among Urban Families" in Boissevain and Mitchell, 1973, pp.67-82.
- DAVIS, James A.: "Clustering and Hierarchy in Interpersonal Relations: Testing Two Graph Theoretical Models on 742 Sociomatrices", *American Sociological Review*, Vol.35, No.5, October 1970, pp.843-851.
- DAVIS, James A: "Structural Balance Mechanical Solidarity, and Interpersonal Relations" in Leinhardt, S.(Ed.) *op.cit.*, 1977, pp.199-217.
- DE KLERK, W.A.: *The Puritans in Africa*, Penguin Books Ltd., Harmondsworth, Middlesex, England, 1976.

- DE SOLA POOL, Ithiel and KOCHEN, Manfred: "Contacts and Influence", *Social Networks*, Vol.1, No.1, August 3, 1978, pp.5-51.
- DE SOTO, Clinton B.: "Learning a Social Structure" in Leinhardt, S.(Ed.) *op.cit.*, 1977, pp.99-103.
- DENZIN, Norman K.: *The Research Act: A Theoretical Introduction to Sociological Methods*, McGraw-Hill Book Company, Second Edition, 1978.
- DE VILLIERS, André (Ed.): *English-Speaking South Africa Today*. Proceedings of the National Conference, Oxford University Press, Cape Town, 1976.
- DU TOIT, Brian, N.: "Afrikaners, Nationalists, and Apartheid", *The Journal of Modern African Studies*, Vol.8, No.4, December 1970, pp.531-551.
- ECKHARDT, Kenneth W. and ERMANN, M. David: *Social Research Methods: Perspective, Theory and Analysis*, Random House, New York, 1979.
- EPSTEIN, A.L.: "The Network and Urban Social Organization" in Mitchell, J.C.(Ed.), 1969(a), pp.77-116.
- EPSTEIN, A.L.: "Gossip, Norms and Social Network" in Mitchell, J.C. (Ed.), 1969(b), pp.117-127.
- EPSTEIN, A.L.(Ed.): *The Craft of Social Anthropology*, Social Science Paperbacks in association with Tavistock Publications, 1967.
- ERBE, William: "Gregariousness, Group Membership, and the Flow of Information" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.125-139.
- FENNEMA, Meindert and SCHIJF, Huibert: "Analysing Interlocking Directorates: Theory and Methods", *Social Networks*, Vol.1, No.4, May 10, 1979, pp.297-332.
- FICHTER, Joseph H. and KOLB, William, L.: "Ethical limitations on sociological reporting", *American Sociological Review*, 18, October 1953, pp.96-97.
- FINLAYSON, Angela: "Social Networks as Coping Resources: Lay Help and Consultation Patterns Used by Women in Husband's Post-Infraction Career", *Social Science and Medicine*, Vol.10, No.2, February 1976, 97-103.
- FOSTER, Brian L.: "Formal Network Studies and the Anthropological Perspective", *Social Networks*, Vol.1, No.3, February 23, 1979, pp.241-255.
- FRANK, Ove: "Sampling and Estimation in Large Social Networks", *Social Networks*, Vol.1, No.1, August 3, 1978, pp.91-101.

- FRANKENBERG, Ronald: "British Community Studies: Problems of Synthesis in Banton (Ed.): *The Social Anthropology of Complex Societies*, 1966, pp.123-154.
- FREEMAN, Linton C.: "Centrality in Social Networks Conceptual Clarification", *Social Networks*, Vol.1, No.3, February 23, 1979, pp.215-239.
- FREEMAN, Linton C., ROEDER, Douglas, MULHOLLAND, Robert R.: "Centrality in Social Networks: 11. Experimental Results", *Social Networks*, Vol.2, No.2, April 25, 1980, pp.119-141.
- FREILICH, Morris: *Marginal Natives: Anthropologists at Work*, Harper and Row, Publishers, 1970.
- GARFINKEL, Harold: *Studies in Ethnomethodology*, Prentice-Hall, New Jersey, 1967.
- GLUCKMAN, M.: "Preface" in Bott, E.: *Family and Social Network*, Second Edition, London, 1971.
- GLUCKMAN, M.: "Anthropological Problems Arising From the African Industrial Revolution" in Southall Aiden: *Social Change in Modern Africa*, 1961, pp.67-82.
- GORDON, Milton M.: *Assimilation in American Life*, Oxford University Press, New York, 1964.
- GRANOVETTER, Mark S.: "The Strength of Weak Ties" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.347-367.
- GROBBELAAR, P.W.: *Die Afrikaner en sy Kultuur*, Tafelberg Uitgewers, Kaapstad, 1974.
- HALLINAN, Maureen T.: "The Process of Friendship Formation", *Social Networks*, Vol.1, No.2, November 24, 1978, pp.193-210.
- HAMMER, Muriel: "Predictability of Social Connections Over Time", *Social Networks*, Vol.2, No.2, April 25, 1980, pp.165-180.
- HARARY, Frank: "Graph Theoretic Methods in the Management Sciences" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.371-387.
- HARRIES-JONES, P.: "'Home-Boy' Ties and Political Organization in a Copper-Belt Township" in Mitchell, J.C.(Ed.): *op.cit.*, 1969, pp.297-347.
- HAUPTFLEISCH, T.: "Language Loyalty in South Africa", Volume 3: *Motivations to Use Language: Opinions and Attitudes of White Adults in Urban Areas*, South African Human Sciences Research Council, Pretoria, 1979. Report No.TLK/L-10.
- HEIDER, Fritz: "Attitudes and Cognitive Organization" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.3-8.

- HERSKOWITZ, M.J.: *Acculturation*, Peter Smith Publishers, Gloucester, Massachusetts, 1958.
- HOLLEMAN, J.F., KNOX, Joan, MANN, J.W., HEARD, K.A.(Eds.): *Problems of Transition*, Proceedings of the Social Sciences Research Conference 1962, Natal University Press, Pietermaritzburg, for the Institute of Social Research, University of Natal, Durban, 1964.
- HONIGMANN, John J.(Ed.): *Handbook of Social and Cultural Anthropology*, Rand McNally and Company, Chicago, 1973.
- HUGHES, Everett C.: "French Canada: The Natural History of a Research Project" in Vidich, Arthur J. *et al.*(Eds): *op.cit.*, 1964, pp.71-83.
- JACOBS, Glenn (Ed.): *The Participant Observer*, George Braziller, New York, 1970.
- JACOBSON, David: "Network Analysis in East Africa: The Social Organization of Urban Transients", *The Canadian Review of Sociology and Anthropology*, Vol.7, No.4, 1970, pp.281-286.
- JEDLICKA, Davor: "Opportunities, Information Networks and International Migration Streams", *Social Networks*, Vol.1, No.3, February 23, 1979, pp.277-284.
- JOHNSON, John M.: *Doing Field Research*, The Free Press, New York, 1975.
- JONGMANS, D.G.: "Politics on the Village Level" in Boissevain and Mitchell, *op.cit.*, 1973, pp.167-217.
- KADUSHIN, Charles: "Power, Influence and Social Circles: A New Methodology for Studying Opinion Makers", *American Sociological Review*, Vol.33, No.5, October 1968, pp.685-699.
- KAPFERER, B.: "Norms and the Manipulation of Relationships in a Work Context" in Mitchell, J.C.(Ed.): *op.cit.*, 1969, pp.181-244.
- KAPFERER, B.: "Social Network and Conjugal Role in Urban Zambia: Towards a Reformulation of the Bott Hypothesis" in Boissevain and Mitchell: *op.cit.*, 1973, pp.83-110.
- KATZ, Fred E.: "Social Participation and Social Structure", *Social Forces*, Vol.45, No.2, December 1966, pp.199-210.
- KATZ, E., LEVIN, M.L., HAMILTON, H.: "Traditions of Research on the Diffusion of Innovation", *American Sociological Review*, Vol.28, No.2, April 1963, pp.237-252.
- KILLWORTH, Peter D. and BERNARD, H. Russell: "The Reversal Small-World Experiment", *Social Networks*, Vol.1, No.2, November 24, 1978, pp.159-192.

- KILLWORTH, Peter D. and BERNARD, H. Russell: "Informant Accuracy in Social Network Data III: A Comparison of Triadic Structure in Behavioral and Cognitive Data", *Social Networks*, Vol.2, No.1, November 15, 1979, pp.19-46.
- KINLOCH, G.C., CLOSE, M.E., WRIGHT, B.: *Urbanization and the Plural Society*, Logan's Academic Press, Durban, 1970
- KINLOCH, Graham C.: *Sociological Theory: Its Development and Major Paradigms*, McGraw-Hill Book Company, 1977.
- KLEIN, Josephine: *The Study of Groups*, Routledge & Kegan Paul Ltd., London, 1956.
- KUPER, Leo, WATTS, Hilstan, DAVIES, Ronald: *Durban: A Study in Racial Ecology*, Jonathan Cape, London, 1958.
- LAMPHERE, Louise: "Ceremonial Co-operation and Networks: A Reanalysis of the Navajo Outfit", *Man*, Vol.5, No.1, 1970, pp.39-59.
- LAUMANN, Edward O. and PAPP, Franz Urban: "New Directions in the Study of Community Elites" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.447-465.
- LEINHARDT, Samuel (Ed.): *Social Networks: A Developing Paradigm*, Academic Press, Inc., New York, 1977.
- LEINHARDT, Samuel: "Social Networks: A Developing Paradigm", "Introduction" in Leinhardt, Samuel (Ed.): *op.cit.*, 1977, pp.xiii-xxxiv
- LEVINE, Joel H.: "The Sphere of Influence" in Leinhardt, S. (Ed.): *op.cit.*, 1977, pp.433-446.
- LOCKE, A., and BERNHARD, J.S.(Eds.): *When People Meet*, Hinds, Hayden and Eldridge, New York, 1946. (Revised edition).
- LORRAIN, Francois and WHITE, Harrison C.: "Structural Equivalence of Individuals in Social Networks" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.67-98.
- LUNDBERG, G.A.: "Pluralism, Integration and Assimilation", *American Council for Judaism* (pamphlet), New York, 1957.
- MAYER, Adrian C.: "The Significance of Quasi-Groups in the Study of Complex Societies" in Banton (Ed.): *op.cit.*, 1966, pp.97-122.
- MAYER, Philip, with contributions by MAYER, Iona: *Townsmen or Tribesmen: Conservatism and the Process of Urbanization in a South African City*, Oxford University Press, 1963.
- MAYER, Philip: "Labour Migrancy and the Social Network" in Holleman, *et al.*: *op.cit.*, 1964, pp.21-51.

- MENZEL, H.: "Innovation, Integration, and Marginality: A Survey of Physicians", *American Sociological Review*, Vol.25, No.5, October 1960, pp.704-713.
- MERTON, Robert K., BROOM, Leonard, COTTERELL, Leonard S.: *Sociology Today*, Basic Books, Inc., New York, 1959.
- MERTON, Robert K.: *On Theoretical Sociology*, The Free Press, New York, 1967.
- MITCHELL, J. Clyde: Opening Discussion on "Labour Migrancy and the Social Network" by Philip Mayer in Holleman (Ed.): *op.cit.*, 1964, pp.35-41.
- MITCHELL, J. Clyde: "Theoretical Orientations in African Urban Studies" in Banton (Ed.): *op.cit.*, 1966, pp.37-68.
- MITCHELL, J. Clyde (Ed.): *Social Networks in Urban Situations: Analyses of Personal Relationships in Central African Towns*, Manchester University Press, Manchester, 1969.
- MITCHELL, J. Clyde: "The Concept and Use of Social Networks" in Mitchell, J.C.(Ed.): *op.cit.*, 1969, pp.1-50.
- MITCHELL, J. Clyde: "Networks, Norms and Institutions" in Boissevain and Mitchell: *op.cit.*, 1973, pp.15-35.
- MITCHELL, J. Clyde: "Social Networks", *Annual Review of Anthropology*, Vol.3, 1974, pp.279-299.
- MOKKEN, Robert J. and STOKMAN, Frans N.: "Corporate-Governmental Networks in the Netherlands", *Social Networks*, Vol.1, No.4, May 10, 1979, pp.333-358.
- MOODIE, Dunber T.: *The Rise of Afrikanerdom*, University of California Press, 1975.
- NELSON, Joel I.: "Clique Contacts and Family Orientations", *American Sociological Review*, Vol.31, No.5, October 1966, pp.663-672.
- NIEMEIJER, Rudo: "Some Applications of the Notion of Density to Network Analysis" in Boissevain and Mitchell: *op.cit.*, 1973, pp.45-64.
- NOBLE, Mary: "Social Network: Its Use as a Conceptual Framework in Family Analysis" in Boissevain and Mitchell: *op.cit.*, 1973, pp.3-13.
- OOSTHUIZEN, A.J.G.: *Akkulturasie Tussen Blankes aan die Witwatersrand*, Publikasiereeks van die Randse Afrikaanse Universiteit, C9, Johannesburg, 1976.
- OPPERMAN, D.J.: *Groot Verseboek*, Nasionale Boekhandel Bpk., Kaapstad, 1960.

- PAUW, B.A.: *The Second Generation: A Study of the Family Among Urbanized Bantu in East London*, Oxford University Press, 1963.
- PETROWSKY, Marc: "Marital Status and the Social Network of the Elderly", *Journal of Marriage and the Family*, Vol.38, No.4, November 1976, pp.749-756.
- PIETERSE, J.E.: *Jeug en Kultuur*, Voortrekkerpers, Johannesburg, 1965.
- PITTS, Forrest R.: "The Medieval River Trade Network of Russia Revisited", *Social Networks*, Vol.1, No.3, February 23, 1979, pp.285-292.
- POLSKY, Ned: *Hustlers, Beats, and Others*, Aldine Publishing Company, Chicago, 1967.
- PONS, V.G.: "Two Small Groups in Avenue 21: Some Aspects of the System of Social Relations in a Remote Corner of Stanleyville, Belgian Congo" in Southall, Aidan: *Social Change in Modern Africa*, 1961, pp.205-216.
- POOL, Ithiel de Sola and KOCHEN, Manfred: "Contacts and Influence", *Social Networks*, Vol.1, No.1, August 3, 1978, pp.5-51.
- RADCLIFFE-BROWN, A.R.: "On Social Structure" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.221-232
- READER, D.H.: "Models of Change, with Special Reference to Southern Africa", *Journal of African Studies*, Vol.23, No.1, pp.11-33.
- REDFIELD, R. *et al.*: "Memorandum for the Study of Acculturation", *American Anthropologist*, Vol.38, No.1, Jan.-March 1936, p.149.
- SADIE, J.L.: "The Political Arithmetic of the Afrikaner", *Journal for Studies in Economics and Econometrics*, No.4, March 1979.
- SACK, Gerald D.: "Groups and Group-Formation Among Migrants in Durban". Paper read at the 2nd Congress of ASSA held in Lourenco Marques, 28th June-2nd July, 1971.
- SAILER, Lee Douglas: "Structural Equivalence: Meaning and Definition, Computation and Application", *Social Networks*, Vol.1, No.1, August 3, 1978, pp.73-90.
- SCHATZMAN, Leonard and STRAUSS, Anselm L.: *Field Research: Strategies for a Natural Sociology*, Prentice-Hall, 1973.
- SCHLEMMER, Lawrence: "English-Speaking South Africans Today: Identity and Integration into the Broader National Community" in De Villiers, A.(Ed.): *op.cit.*, 1976, pp.91-135.
- SEIDMAN, Stephen B. and FOSTER, Brian L.: "A Note on the Potential for Genuine Cross-Fertilization Between Anthropology and Mathematics", *Social Networks*, Vol.1, No.1, August 3, 1978, pp.65-72.

- SERFONTEIN, J.H.P.: *Brotherhood of Power: An Exposé of the Secret Afrikaner Broederbond*, Rex Collings Limited, London, 1979.
- SHOKEID, Moshe: "Social Networks and Innovation in the Division of Labour Between Men and Women in the Family and in the Community: A Study of Moroccan Immigrants in Israel", *The Canadian Review of Sociology and Anthropology*, Vol.8, No.1, 1971, pp.1-17.
- SMITH, M. Estellie: "Networks and Migration Resettlement: Cherches la Femme", *Anthropological Quarterly*, Vol.49, No.1, January 1976, pp.20-27.
- SOUTHALL, A.W.: "Kinship, Friendship, and the Network of Relations in Kisenyi, Kampala" in Southall Aidan: *Social Change in Modern Africa*, 1961, pp.217-229.
- SOUTHALL, Aidan (Ed.): *Social Change in Modern Africa*, Oxford University Press, London, 1961.
- SRINIVAS, M.N. and BETEILLE, A.: "Networks in Indian Social Structure", *Man*, No.212, November-December, 1964, pp.165-168.
- STEIN, Maurice R.: "The Eclipse of Community: Some Glances at the Education of a Sociologist" in Vidich, Arthur J. *et al.* (Eds): *op.cit.*, 1964, pp.207-232.
- STREAK, Michael: *The Afrikaner as Viewed by the English 1795-1854*, C. Struik (Pty.) Ltd., Cape Town, 1974.
- THODEN VAN VELZEN, H.U.E.: "Coalitions and Network Analysis" in Boissevain and Mitchell: *op.cit.*, 1973, pp.219-250.
- THOMPSON, Richard A.: "A Theory of Instrumental Social Networks", *Journal of Anthropological Research*, Vol.29, No.4, 1973, pp.244-265.
- THURMAN, Blake: "In the Office: Networks and Coalitions", *Social Networks*, Vol.2, No.1, November 15, 1979, pp.47-63.
- TIMASHEFF, Nicholas S.: *Sociological Theory: Its Nature and Growth*, Random House, New York, 1963.
- TOLSDORF, Christopher C.: "Social Networks Support and Coping: An Exploratory Study", *Family Process*, 4 December 1976, pp.407-417.
- TRAVERS, Jeffrey and MILGRAM, Stanley: "An Experimental Study of the Small World Problem" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.179-197.
- TROUWBORST, A.: "Two Types of Partial Networks in Burundi" in Boissevain and Mitchell: *op.cit.*, 1973, pp.111-123.
- TURK, Herman: "Interorganizational Networks in Urban Society: Initial Perspectives and Comparative Research" in Leinhardt, S.(Ed.): *op.cit.*, 1977, pp.141-159.

- TURNER, Jonathan H.: *The Structure of Sociological Theory*, The Dorsey Press, 1974.
- VAN JAARSVELD, F.A.: *Die Afrikaner en sy Geskiedenis*, Nasionale Pers, Cape Town, 1959.
- VAN JAARSVELD, F.A.: *The Awakening of Afrikaner Nationalism, 1868-1881*, Human en Rousseau, Cape Town, 1961.
- VAN JAARSVELD, F.A.: *The Afrikaner's Interpretation of South African History*, Simondium Publishers, Cape Town, 1963.
- VAN POUCKE, Willy: "Network Constraints on Social Action: Preliminaries for a Network Theory", *Social Networks*, Vol.2, No.2, April 25, 1980, pp.181-190.
- VAN VELSEN, J.: "The Extended-Case Method and Situational Analysis" in Epstein, A.L.(Ed.): *The Craft of Social Anthropology*, 1967, pp.129-147.
- VENGROFF, Richard: "Networks and Leadership in a Development Institution: The District Council in Botswana", *Political Anthropology*, Vol.1, No.2, July 1975, pp.155-174.
- VIDICH, Arthur J., BENSMAN, Joseph, STEIN, Maurice R.(Eds): *Reflections on Community Studies*, John Wiley and Sons, New York, 1964.
- WALLACE, Walter L.: *The Logic of Science in Sociology*, Aldine Atherton, 1971.
- WATTS, H.L.: "A Social and Demographic Portrait of English-Speaking White South Africans" in De Villiers, A.: *op.cit.*, 1976, pp.41-89.
- WEBB, Eugene J., CAMPBELL, Donald T, SCHWARTZ, Richard D., SECHREST, Lee: *Unobtrusive Measures: Non Reactive Research in the Social Sciences*, Rand McNally and Company, Chicago, 1966.
- WELSH, D.: "The Political Economy of Afrikaner Nationalism" in Leftwich, A.: *South Africa: Economic Growth and Political Change*, Allison and Busby, London, 1974, pp.249-285.
- WHEELDON, P.D.: "The Operation of Voluntary Associations and Personal Networks in the Political Processes of an Inter-Ethnic Community" in Michell, J.C.(Ed.): *op.cit.*, 1969, pp.128-180.
- WHITTEN, Norman E.(Jr.): "Network Analysis and Processes of Adaptation Among Ecuadorian and Nova Scotian Negroes" in Freilich, Morris: *op.cit.*, 1970, pp.339-402.
- WHITTEN, Norman E., Jr.: "Network Analysis in Ecuador and Nova Scotia: Some Critical Remarks", *The Canadian Review of Sociology and Anthropology*, Vol.7, No.4, 1970a, pp.269-280.

- WHITTEN, Norman E. Jr. and WOLFE, Alvin W.: "Network Analysis" in Honigmann, John J.(Ed.): *op.cit.*, 1973, pp.717-746.
- WHYTE, William F.: "The Slum: On the Evolution of Street Corner Society" in Vidich, Arthur J. *et al.* (Eds): *op.cit.*, 1964, pp.3-69.
- WINTON, Chester A.: *Theory and Measurement in Sociology*, John Wiley and Sons, Inc., New York, 1974.
- WILKINS, Ivor, and STRYDOM, Hans: *The Super-Afrikaners*, Johathan Ball Publishers, Johannesburg, 1978.
- WISEMAN, Jacqueline P. and ARON, Marcia, S.: *Field Projects in Sociology*, Transworld Publishers Ltd., London, 1972.
- WOLFE, Alvin W.: "On Structural Comparisons of Networks", *The Canadian Review of Sociology and Anthropology*, Vol.7, No.4, 1970, pp.226-244.
- WOLFE, Alvin W.: "The Rise of Network Thinking in Anthropology", *Social Networks*, Vol.1, No.1, August 3, 1978, pp.53-64.
- YENGOYAN, Aram A.: "Open Networks and Native Formalism: The Mandaya and Pitjandjara Cases" in Freilich, Morris: *op.cit.*, 1970, pp.403-439.
- ZETTERBERG, Hans L.: *On Theory and Verification in Sociology*, The Bedminster Press, Totwa, New Jersey, 1963. A much revised edition.
- ZIJLSTRA, Gerrit Jan: "Networks in Public Policy: Nuclear Energy in the Netherlands", *Social Networks*, Vol.1, No.4, May 10, 1979, pp.359-389.