COGNITIVE STRUCTURING OF RESIDENTIAL ENVIRONMENTS IN BLACK GRAHAMSTOWN:
A POLITICAL VIEW

by

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ABSTRACT

This research project investigates black cognitive structuring of their residential environment in the Grahamstown location. A clinical psychological method (repertory grid method) was used to elicit the construct systems of residents. The associative construct theory formulated by Kelly (1955) was used in interpreting the data set from the liberal perspective. The radical perspective demonstrated an alternative interpretation. A focus of the study centres around the possible implications of this type of research for planning action.

The results showed that the repertory grid did appear to accurately reflect people's construing systems regarding their circumstances and behaviour. However, Kelly's (1955) Personal Construct Theory proved inadequate as a theory of explanation as to why people construed in the manner they did. To enhance this explanation, the marxist approach to the theory of knowledge was investigated.
CHAPTER ONE

INTRODUCTION

Increasingly researchers express a need for a research approach in geography that encompasses psychological and sociological aspects to understanding the urban environment. One of the initial responses in geography to this need was the development of the behavioural tradition which attempted to be more 'subject sensitive' (Cox, 1981). However, due to the positivist framework within which this tradition is based, it provided a body of psychologically-based theory to explain human decision-making but was unable to deal with problems of human meaning. An important intellectual response to this problem was the development of a humanistic geography. This approach, also individualistic (Duncan and Ley, 1982), is based on the assertion that the world is 'first and foremost the world of self-conscious individuals' (Cox, 1981, 265) and the researcher's task is to interpret these meanings. However, Gregory (1981) points out a major shortcoming in the humanistic approach in that it abstracts the individual from society and thereby also the social consciousness from the context within which people live. In other words, people are studied as interrelating objects removed from the context of their physically and ideologically structured surroundings. In short, humanism provides 'no theory of social life' (Cox, 1981, 266). That is, the reciprocal effect between human agency and people's structural context is largely neglected.

In particular, Gregory (1981) calls for a study on how economic and political structures as well as cognitive and cultural structures become articulated since they are both the medium and the outcome of practices constituting people's own construing systems. He favours a humanist marxist approach envisaging structures, rather than being barriers or constraints to human agency, as themselves involved in production and their own reproduction. This requires a synthesis between the symbolic and the physical,

1The term 'structure' in this thesis refers to the physical contextual environment determined by bureaucratic institutions, e.g. legislative systems, and the mental context determined by ideological institutions, e.g. those of socialisation like schools, the family, etc., both of which determine the environment within which an individual construes.
in the realms of constraints and meanings 'where values and consciousnesses are seen as embedded and grounded in their contexts, and where environments are treated as contingent before emerging forms of human creativity' (Ley, 1977, 249). In this approach both marxism and humanism suppose that certain social practices within specific contexts give rise to different forms of knowledge. Here the problem arises between the two approaches as to the social construction and essential nature of 'knowledge' as the basis upon which individuals enact their decisions.

It is not within the scope of this thesis to elaborate further upon this debate but rather to note its relevance to the subject matter of this project. This research project constitutes a study into the cognitive world the residents in a black residential area have of their residential environment using a clinical psychology research technique. The mental images or constructs are taken as the symbolic interpretation of an individual's perceived physical and ideological structural context and is thereby indicative of the basis of an individual's body of theory, i.e. the different forms of knowledge or psychological awareness upon which decisions are enacted. The aim of the project is to understand the residents expressed priorities as formulated within the context of their physically and ideologically structured world. The potential compatibility of a combined humanist and marxist approach will also be noted.

The central focus on the residential environment provides a sociological and geographic area of concern of importance to both the individual decision makers in the residential environment and those in positions of authority with respect to that environment. That is, we can recognize that there is a concern by the residents themselves over their poor living conditions; and we can also recognize that there is concern by authorities who plan and create an environment which is ostensibly aimed at overcoming these social problems as expressed in most South African cities. Concern is evidenced in particular, over the chronic African housing shortage which, particularly since the 1976 Soweto riots is

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1Here 'knowledge' and 'psychological awareness' both refer to forms of knowing or conceptual frameworks.

2The terms 'african' and 'black' will be used synonymously for the purposes of this thesis. 'Black' hereafter will not refer to coloureds and indians.
receiving much attention by planning authorities. It is an area of concern that has up until recently been grossly neglected, so much so that it now presents a major problem in planning and policy decision-making circles. Efforts are now being made by the authorities to overcome the persistent housing crisis with measures such as the modern planned housing estate and self-help schemes. However, several problems are encountered in these approaches. For instance, the construction of residential environments proves expensive, given state priorities, and development of them difficult for the authorities to control.

In attempting to understand how the black housing crisis intersects at the level of cognitions with the individual/social structure relationship, this research project surveys the mental constructs or subjective images residents have of their local residential environments. George Kelly (1955) provides a neatly combined theory (Personal Construct Theory) and methodology (repertory grid method) towards this end. The process of analysing and understanding these individually created construct systems will take place relative to the residents objective, contextual environment that is the product of social structures and state intervention. Both the liberal perspective, rooted in Weberian sociological assumptions, and the radical perspective, rooted in the marxist approach, will be used to study this contextual environment within which individual residents and those in authority enact their decisions. Both perspectives analyse the social system at a macro scale. However, each concentrates their concern on different planes. The liberal perspective, in accepting the capitalist system, concentrates more on the relationship between individuals and their contextual environment within their bureaucratically imposed constraints. On the other hand, the radical perspective, in rejecting the capitalist system, is critical of present housing alternatives. These are seen as structurally imposing an environment which is consistent with the needs of commodity production. For instance, on the one hand the liberal approach is concerned -- for instance in the promotion of homeownership -- with the ideological incorporation of individuals into what they consider a structurally sound politico-economic system. On the other hand, the radical approach questions the entire nature of relations between the individual and the structural system and is therefore more critical of the 'self evident' virtues of homeownership and privatisation.
Essentially, while the liberal perspective identifies the supremacy of the political sphere in the promotion of the progressive industrial state, through rationalising human action, the radical perspective locates power relations in the economic sphere. Consequently both views perceive 'class' and class membership differently. Giddens (1973) notes Weber's assertion that possession of property forms the basis of upper class inclusion, while the hierarchically organised lower class occupation groups are incorporated on the basis of education qualifications and skills. Distribution of political power within society then, is relative to class position of individuals as 'class is founded upon differentials of economic interest in market relationships' (Giddens, 1973, 43). However, owing to differential incorporation, common class interests between white-collar and manual occupation groups will differ substantially.

'Class' from the radical perspective is viewed more as a power relationship between the individual and the means of production. In categorical terms two groups are identified: those controlling capital in production and those contributing primarily labour to the production process. Class interests and values differ upon this basis. Those controlling capital are identified as the group that dictates the direction and rate of development of the industrial state through manipulation within the sphere of production rather than that of consumption. In the marxist view the liberal solution of bureaucratic rationalisation in the absence of abolition of the capitalist means of control (i.e. primarily private property) succeeds only in exacerbating worker exploitation. According to the radical perspective it is the nature of relations between the individual and the production system that requires adjustment.

A major aspect of this thesis then, is a concern with the levels of psychological awareness of individual black actors relative to their immediate residential contexts -- contexts that are grounded in the macro structural context of the system within which they operate. Within the corporate response certain class interests may be identified in terms of the liberal sense of differential market incorporation into the system of groups of individuals with similar 'status', and in the radical sense of groups of individuals experiencing a similar relationship to the means of production. Issues over class, then, form a nexus for investigation between the two paradigms. How the responses gained from the survey could relate to progressive planning action also forms an important aspect of this research project.
The thesis is organised in the following manner:
Approaches adopted in past research to the housing problem in Third World countries will be outlined in Chapter 2. The liberal view is especially evident in recent housing research. This view points to the need to analyse the problem at the micro or individual level which is currently the concern of social researchers. Concern over planning action is an integral part of this thesis and will be discussed here as the means by which rational interests on the level of the decision-making authorities become implemented at the micro level. Some attention will briefly be paid to planning currently taking place in socialist countries.

Chapter 3 initially outlines Kelly's (1955) Personal Construct Theory as one means of investigating the nature of knowledge and how it is acquired in the form of an individual construing system. Following this is a section on Kelly's (1955) critics both from within the liberal paradigm and from the radical school. Essentially the crux of the argument from the radical point of view will centre around the ideological nature of knowledge and the extent to which life is structured to reinforce a false consciousness. The role played by state intervention in structuring the contextual environment within which individuals enact their decisions based on their conceptual frameworks will be investigated in Chapter 4. Here at the national level both the liberal and radical perspectives will investigate the state as a structural organiser in the residential environment implementing the ideals of the capitalist system. Particular reference will be made to the outcome of state intervention specifically in the residential environment of the South African urban poor. This section is followed in Chapter 5 by a summary of aspects of South African housing policy. Within this section the contemporary housing debate between the liberals and radicals will highlight the most recent focus in the national housing arena on the nature of self-help housing. This in turn necessitates an investigation of the original context within which the terms such as self-help housing were formulated. Finally anarchist assumptions will be studied in this context as a possible alternate approach to both the liberal and radical views.

In Chapter 6 discussion centres on an example of a specific contextual environment subject to the South African national housing policy -- black Grahamstown. The findings of past research in the area will be included in the analysis. These too are almost exclusively from the liberal view
point and will consequently require comment from the radical standpoint to set the analysis in perspective.

This is followed in Chapter 7 by an outline of what the repertory grid methodology proposed by Kelly (1955) entails. Its advantages over other methods used in the social sciences will be noted together with its adaptations and applicability for this research project. In particular, the various types of repertory grid will be discussed. The implementation of the selected grids and the data sets obtained from these grids will be reviewed in the results section of both the pilot study and the main survey in addition to the actual results themselves.

The pilot study itself, the discussion of results and the conclusions constitute Chapter 8. The implications of this data set for planning purposes are discussed in the results section of the pilot study, pointing out the limitations of the dyad grid both analytically and for decision-making at the level of the authorities. More appropriate grids for this purpose are used in the main survey.

The methods, analysis of data and results of the main survey are contained in Chapter 9. Since conventional methods proved unsatisfactory, it is noted, a novel method was required to produce a data set: namely, the association matrix. The factor analytic techniques performed on this matrix are also explained. An analysis of class priorities is then performed on the data set to investigate different group interests in black Grahamstown -- particularly those based on income. An extention of this investigation using computer techniques not contained in the conventional statistical packages for computers and especially developed for this thesis is then used to test the 'resistance to change' of constructs relative to income stratification. Central to the analysis and interpretation of the results then are 'class' interests in the Weberian sense. The implications of these are discussed in Chapter 10.

Chapter 11 evaluates the data set obtained through the repertory grid methodology and relates these results to planning action. Finally Kelly's (1955) theory is reconsidered as a theory of explanation. This is followed by considering radical theory as one of explanation. The contribution each school makes to understanding as well as their shortcomings is discussed and possible directions for future research are noted.
CHAPTER TWO

APPROACHES TO THE HOUSING PROBLEM IN THIRD WORLD COUNTRIES

Well acknowledged problems identified by researchers concerned with housing are the limitations placed upon them by their own theoretical perspectives and the difficulties of identifying the source of housing problems without alienating their patrons. Also, given the liberal and conservative orientation of past research into housing in Third World countries, it is difficult to avoid noticing in the literature the apparently benign attitude that is inevitably attributed to planning action. Consequently this chapter on approaches to the housing problem in Third World countries will reflect these reconciliations experienced consciously or not by researchers searching for acceptable solutions within their own macro environments.

Recent research into the housing crisis experienced in Third World countries has mainly been approached from the liberal perspective. That is to say, the authorities as 'agents' of the capitalist system have applied themselves to devise the least expensive but most effective means of market incorporation of the urban poor. Given their differential incorporation into the system and hence different value and interest orientations in the liberal view, an immediate problem of definition regarding what constitutes a 'housing problem' to the planners and what constitutes one to the residents themselves, becomes evident. The 'housing problem' then may be identified on two levels. One is on the level of the macro system (predominantly capitalist) while the other is on the micro, local or individual level.

For the purposes of this thesis, the 'agents' or intermediaries between the macro level and the micro level would be the planners and authorities, while the micro level perspective would be represented by individual cognitions and actions within the urban poor communities. It is towards the analysis of interaction between these two levels -- the intermediaries and of the residents -- that this chapter is directed.

From past research it seems that the perspectives of the authorities and the local residents diverge significantly in their perception and experience of the housing problem. Planners and authorities apparently experience the problem as one of how to provide large quantities of good quality shelter at the least possible cost. Individuals on the other hand experience the problem of acquiring shelter which is also a home. That is to say, a dwelling unit which includes attributes such
as satisfaction, security, identity, stimulation, neighbourhood, public 'environmental goods' (e.g. schools, parks, etc.), favourable location, a network of social relations, etc. (Bourne, 1981; Porteous, 1977). Conflict arises, it would seem, between these two perspectives on the definition of what a desireable residential environment is. The two perspectives, therefore, require investigation in greater depth.

2.1 CONCERN BY THIRD WORLD AUTHORITIES WITH HOUSING ISSUES

Studies into the housing problem in Third World countries have tended to concentrate on the relative socio-economic statuses of residential urban populations with regard to access to housing. In so doing, they have often attempted to assist the effective participation of urban poor in the urban economy. Payne (1977, 64) notes that '...the role of planning in either reinforcing or helping to redistribute incomes and resources is central to the whole question of urban growth and development itself'.

The reasoning here is that apparent lack of access to resources by the urban poor requires that they be granted greater assistance to enable them to participate more fully in their own development and in the process the development of their countries. This philosophy is extended to the sphere of housing just as much as it is to education, medical care and even the process of commodity production.

Bourne (1981), however, sees that housing in such a context can become increasingly politicised because of the increasingly complex overlay of housing and land use legislation. He identifies increased politicisation as a result of the very diverse political philosophies or ideologies which shape housing policies. This is especially a feature of rapid urbanisation characteristic in Third World countries. According to Renaud (1981) prior to the 1960's, developing countries displayed little concern for organising and controlling human settlement. However, the relentless rate of recent urbanisation and consequent concentration of people in cities has necessitated actions of control such as planning because of desperate housing shortages and the consequent establishment of squatter settlements and slums.

Initially the response by authorities in developing countries was to identify these 'informal settlements' as health hazards and hotbeds of political unrest. The planning approach consequently, was to tear down
slums, and either resettle their occupants in high-rise public housing projects or, adopting a policy of benign neglect, to leave them to fend for themselves (Bourne, 1981). However, more recent emphasis has been to raise the quality of housing and standard of living through renewal schemes and through the 'sweat equity' of self help housing. This has been done together with an introduction of local health and social services.

The change in attitude to the shanty town is, according to the liberal perspective, apparently in recognition of what it has to offer in the way of inexpensive accommodation, favourable location and existing frameworks that fulfil basic needs. Also researchers such as Dwyer (1975) emphasise the inevitability of informal settlements in the urban landscape of Third World countries. Consequently a more positive approach, the liberals assert, has been adopted by most countries of the Third World towards housing their urban poor.

As a reaction to centrally administered planning, Payne (1977) maintains that tendencies of preoccupation with the physical aspects of planning, rather than their socio-economic context has led to a widespread attempt to impose inappropriate forms of 'balanced and ordered growth'. That is, the housing problem has for the most part been dealt with 'from the top downwards' (Turner, 1976) in the belief that the problem may be solved by the provision of more physical structures. Porteous (1977, 321) observes that the physical emphasis sometimes assumes that design has a major influence on human behaviour: 'People's lives may be shaped and changed by means of appropriate design... (However) there is no conclusive evidence that the physical environment is a more influential behaviour shaper than the contextual or personal environments'. The radical view would agree with this, pointing out that elements of both are required for social conditioning. Planning from the top downward in a capitalist system, they would argue, is essential in order to ensure a co-operative, cheap source of exploitable labour power. The liberal view also recognises that those implementing policy do not appear to have the welfare of the recipients at heart. The liberal contention in this regard is that by putting their faith in buildings to theoretically foster community life, planners have not shown a concern for human growth and personal development. They argue that authorities and planners have ignored the social and administrative distance between themselves and their user-clients, persisting in their attempt to
'specify human relations through design to the point of community disruption' (Porteous, 1977, 325).

Payne (1977) points out in support that planning has often produced and even intensified those very situations it was ostensibly intended to prevent. Increasingly the opinion seems to be that it is fallacy to assume, as has often been the case with housing policy, that housing estates provided by the state constitute positive and constructive planning action. Rose (1976, 252), for example, charges that the actual results often bring about 'changes that penalise a larger segment of the population than they reward' and that the same fundamental problems remain. Research concern has increasingly been for the micro implications and repercussions of planning activities on the national scale. For instance, researchers maintain that schemes such as planned housing estates can force the poor into a position where, although they may receive artifacts to which they aspire, they do so at tremendous personal social and economic costs. For example, families may cut down on the food basket in order to enjoy better housing. It is recognised that this outcome does not enhance their own social wellbeing or that of society at large in the long run. Researchers postulate that little serious cognisance is taken of the very real constraints experienced by the lower socio-economic groups in that the low income groups have seldom been consulted in any planning activities (Dewar, 1979). Turner and Roberts (in Wilsher and Richter, 1975) note how differently the 'cities the poor build' are ordered by comparison to those that are planned and administered by central agencies.

This all contributes to the liberal thesis that centrally administered planned housing estates do not allow people to organise and express themselves as they would prefer. In addition, the liberals argue, these imposed residential environments inhibit the lower socio-economic group from devising, in a natural way, what is to them the most efficient and appropriate means of dealing with their own specific constraints. Consequently the planned housing environment may not fulfill its function as a viable residential environment in the eyes of the poor either. These conclusions motivate the liberal researchers to investigate the micro level in greater detail in an attempt to evaluate the residential environment from the individual and community's point of view. Liberals, then, identify the absence of attention and consultation with residents at the local level as an indication of managerial ineptitude.
2.2 RESEARCH INTO THE MICRO PERSPECTIVE

Recent research exhibits disenchantment with the single-minded evaluation of the housing problem from the point of view of the planners. In such evaluations the consequences of housing policies are invariably gauged in terms of whether the results are desirable to those in authority as opposed to those who actually use the goods. For example, according to Rose (1976) much housing research has in the past emphasised the nature of inputs in the way of finance and effort on the part of the state above that of the outputs, i.e. how the people themselves react to the type of housing they receive. He stresses the importance of the latter area of research and argues that inputs can only be measured in relation to the outputs.

Researchers such as Porteous (1977) and Turner (1976) have also indicated that there is a clear need for authorities to understand that the housing problem as interpreted from the point of view of the planner may be different from that interpreted from the point of view of the client. The essential difference, according to liberal critics, lies in the unequal power vested in socio-economic status between the two groups. Hence the perceptions and values as determined by the relative control each group has over their own environments will vary. That is to say, rich and poor people display different preferences because they are subject to different socio-economic constraints. Lloyd (1979) also points out the varying perceptions of planners and planned-fors when he notes the tendency of outsiders to view and evaluate squatter settlements from their own value frameworks. Those in authority tend to plan with their own values in mind rather than to consult with and discover the priorities and preferences of those for whom they plan. Invariably this situation has led to the tendency by outsiders to equate substandard housing with the creation of slums. For example, Dwyer (1975) is adamant that minimum standards must be maintained in the construction of low income housing. However, the acceptable 'minimum standard' inevitably varies and is inclined to reflect the higher socio-economic status values of the planner as opposed to those they plan for. The liberal argument here is opposed to the imposed value system of those in authority and the unfairly and inefficiently enforced incorporation of the lower income groups into 'unrealistic values' of the macro system.
Whitbread and Bird (1973) also indicate that different socio-economic groups do have different priorities and constraints relative to each other and as such it is necessary for planners to gauge these preferences. Originally this was estimated in economic terms, e.g. how much people were prepared to pay for a certain residence. However, increasingly researchers have stressed the need to investigate broader sociological and psychological considerations. The emphasis then, in recent housing research, is to evaluate cognitions and behaviour at the local, micro level of the individuals within their wider social context in order to provide a satisfactory and functional living environment (Porteous, 1977; Whitbread and Bird, 1973; Turner, 1976).

The foregoing is a typical view of the liberal perspective which increasingly denigrates the authoritarian and dictorial approach to planning in favour of the paternal consultation strategy with the residents themselves. The recent emphasis on consumer participation in the housing process also ostensibly enables the planner to plan with rather than plan for the residents. It also incidently simultaneously relieves the planner of the burden of unsuccessful decision-making, transferring this on to the residents themselves. However, it appears that the urban poor cannot be left to their own decision-making regarding housing without some sort of administration or guidance as to what is 'desireable' and of 'suitable standard'. This forms a contentious issue within recent housing research. On the one hand the liberal school of thought believe in the humanitarianism of planning activity. On the other hand the radical approach identifies within the planning process components of physical and social conditioning. According to the radical view, the purpose of planning within the capitalist mode of production is to physically and ideologically structure people to perform specific functions which promotes exacerbating inequalities in the capital accumulation process.

The radical interpretation of trends in planning policy within the Third World differs substantially from that of the liberals. The radical perspective understands planning action in terms of its part in safeguarding the functioning of the capitalist system. That is, excessively low standards of living produces an inefficient workforce. The 'housing problem' becomes one for the workforce trying in the face of excessive structural manipulation to reconcile their needs within the context of their constraints. For the planners the problem increasingly becomes one of creating a residential environment which proves effective in
providing cheap shelter in a form which on the one hand encourages commodity consumption but on the other does not raise labour's expectations of increased incorporation into the economic system to 'uneconomic' levels for capital. The pattern of planning policy appears to be as follows.

Initially, once the inevitability of slums and shanty towns is recognised, enormous amounts of capital are outlayed by the state to aid the physical structuring of the residential environment. The aim here is to encourage capitalist values such as, for example, privatisation and commodity consumption. An instance here is the uniform single family housing units of the planned housing estate. Once capitalist values such as privatisation and individualisation have been inculcated into the workforce, it then becomes possible to relent on the physical structuring in the planning process to the extent that site and service schemes become acceptable. That is, less emphasis becomes required on physical structuring so that for instance, minimum standards serve as guidelines for suitable housing construction. At this stage greater emphasis is placed on the ideological structuring within the residential environment, for example, the concept of homeownership to reinforce the values of the system. Costs of further implementing structural constraints are later reduced by being passed on to the residents themselves through schemes such as self-help. Here individuals may be trusted to express and act upon priorities that conform to those that enhance the system within which they operate. They can consequently be consulted in the planning process. That is, one can only gauge preferences and produce the answers that promote the development of a particular system once people have been inculcated with its values.

It should be noted here that this is true too for socialist systems. For example, in his article on housing policies being implemented in Mozambique, Pinsky (1981) notes the same progression. That is, after independence the authorities accepted the shanty town but sought to improve the quality of the residential environment through initially site and service and then self-help schemes in conjunction with shanty upgrading. He points out also that people were consulted throughout in the planning of the layout of their residential environments. They expressed a desire for a layout based on the pre-independence model of 'grid-iron cement city' which exemplified to them good organisation. The difference however, was in the socialist orientation of the project.
Pinsky (1981) records that in the absence of private property ownership, residents individually and through membership of the block committees participated and themselves initiated methods of dealing with planning problems such as plot sub-division. He notes also how amenable the collective housing pattern they established was to a highly participatory life.

It seems evident from this that the urban poor, even though they may be educated into the capitalist ethic, upon consultation may express socialist preferences and if permitted, would eagerly act them out. The lack of enforced imposing of ideals from the authorities and the voluntary participation of residents themselves in the planning process, are two positive aspects produced by this model of the socialist system. These too exemplify precisely those aspects liberal proponents of the capitalist system urge but do not appear to successfully be able to achieve.

In short, then, past housing research has not established a concise, consistent or effective framework from which to approach the housing problem at either the national or local levels. It has rather provided a number of models based on development theory where the prescribed planning action is consistent with a level of development in a country. For example, it seems that the initial thrust in Third World planning policy is the establishment of the structural environment most appropriate for the 'desireable' industrial state. Once the perpetuation of that state is ensured, the liberal approach to planning becomes adopted. Where individual cognitions have been surveyed, little attention has been paid to the wider contextual environment within which they were developed. That is, in past residential research the nature and evolution of the cognitions themselves were never questioned in relation to the individual's physical and ideological structural environment. It is towards this end that Kelly (1955) offers his theory of psychological awareness which will now be reviewed.
CHAPTER THREE

THEORETICAL ASPECTS OF THE METHODOLOGY

This chapter deals with the theoretical aspects of the methodology used in this research project. It points out the increased interest by researchers in the use of psychological techniques to enhance social scientific investigation. Both the liberal and radical approaches to aspects of psychological research will be discussed. George Kelly's (1955) thesis on knowledge acquisition will provide the basis for discussion from the liberal paradigm. It must be pointed out, however, that although Kelly (1955) provides an apolitical theory, his essentially humanist stance lends itself more appropriately to interpretation from the liberal paradigm than it does from the radical school. Karl Marx provides a theoretical framework within which the radical view on the nature of knowledge and its acquisition may be studied. Fundamental to the latter view is the influence the physical and ideological structural environment has on knowledge acquisition. In the former view the influence that personally perceived and experienced constraining circumstances have on knowledge acquisition is stressed. In both the liberal and radical approaches the nature of knowledge is investigated. Both views identify 'knowledge' as a scientific body of theory. Kelly (1955) dwells exclusively on this aspect. His critics, including those from the radical perspective however, identify another supplementary type of knowledge which individuals acquire for everyday living. The implications of the relationship between these two types of knowledge in the planning process will be gradually developed throughout the thesis.

3.1 KELLY'S PERSONAL CONSTRUCT THEORY

The ideological assumptions underlying the use of psychological techniques in planning research are often based on a desire to bridge the communications gap between those in authority and those affected in decision-making. There is the notion that greater understanding of the nature of individual conceptual frameworks will enhance decision-making at a higher level. That is, this understanding should determine those areas where input may be most effective in reducing those factors that inhibit the realisation of liberal goals in planning.
The interest in psychological research then, is to devise means whereby popular consciousness may be investigated towards this aim. It has been in the past not so much an interest in uncovering the process of knowledge acquisition, but rather a concern merely for perceiving things in the way the subjects themselves perceive their circumstances that has motivated psychologically oriented planning research. In many instances survey research proved to be a tautological instrument towards this end. Planners, for example, may have decided that, say, roads, kerbs, street-lights, house design, garden size, etc. were salient categories upon which to solicit attitudinal responses from residents. In so doing they might be able to adjust policy in order to minimise resistance from users to a set of planning priority preconceptions that were essentially non-negotiable from the planners viewpoint. In other more sophisticated cases survey research was not simply used to calibrate priorities within the non-negotiable concept repertoire held by planners. Using a range of techniques more sensitive to the respondents indigenous definitions of planning problems, planners were able to come closer still to an awareness of user needs. Certainly Kelly's (1955) repertory grid technique falls within this category of technique.

Kelly (1955) however, provides more than just another method of survey research. He also provides a theoretical framework within which the actual nature of knowledge and its acquisition may be examined as a basis for understanding individuals conceptual frameworks and perceptions. This background is essential if one is to investigate and question the structural environment within which individuals construe and within which decisions are made.

Kelly's Personal Construct Theory is a theory committed to understanding the process whereby people make sense of their world (Procter and Parry, 1978). It is a theory on how individual perception of the world affects behaviour. Bannister and Mair (1968) note that Personal Construct Theory has been called both a cognitive and existentialist theory. Central to the theory is the relationship between mental constructs and behaviour in that people act out their chosen preferences based on beliefs and knowledge at their disposal. An evolving cognitive and belief system thus develops forming deeper insights into the nature of reality through the interaction between learned and experienced knowledge.
The theory is concerned with assessing the types of mental images that become personal constructs and how an individual develops these through personal everyday experiences. It is not merely a theory on ways of perceiving the world but also sees construing as personal involvement in actively precipitating a new situation (Bannister, 1977). These experiences are influenced to a large extent by an individual's position in society relative to others and their environment. Bannister (1977) notes that people know themselves through their behavioral relationships with others and events. They act not only to verify their theoretical framework of reality but to alter their circumstances for their own progress. Personal constructs then determine an individual's perception of and consequently response to events and situations in their social and physical environment.

Kelly proposes eleven corollaries or qualifications, in this process of cognitive development (see Bannister and Mair, 1968). These corollaries will be mentioned in the following outline of Kelly's Personal Construct Theory.

3.1.1 Cognitive development theory model

The model underlying construct psychology is Kelly's idea of 'man the scientist' who seeks to understand, predict and control the course of events in which he is involved. According to Kelly (Bannister and Fransella, 1971), the sole motivation in a person's existence is their quest for further understanding of reality and hence the knowledge of truth. Kelly (Bannister and Fransella, 1971) claims that there is no unlimited free will or determinism and no driving force that motivates an individual other than the direction of their own inquiries (Bannister and Fransella, 1971). An individual is thus free to determine the direction of their own development through their quest for knowledge -- a theory of liberation through understanding.

The process of designing a personal theoretical framework (personal construct system) so as to understand ourselves, our universe and particular events, is essentially the same for each individual. Although fundamental to personal construct theory is the postulate of the uniqueness of individuals as a product of essentially unique circumstances (Individuality Corollary), those experiencing similar circumstances will tend to develop and utilise similar cognitive systems (Communality
Corollary). Each person has a personal construct system which is composed of a finite number of dichotomous constructs (Dichotomy Corollary). Individuals hypothesise about anticipated outcomes of certain events based on past experiences and beliefs and then actively seek to supplement and extend their knowledge through participation in reality. Choice of action is made on anticipation of an estimated finite range of events (Range Corollary) and by means of which an individual anticipates the greater possibility for achieving the elaboration of their theoretical framework (Choice Corollary). New experience gained from external stimulation is evaluated against the current belief system and fund of learned and experienced knowledge by the individual in an attempt to validate the accuracy of the theoretical framework (Experience Corollary). The outcome provides the necessary information to reassess present information and allows a person to anticipate further events by construing their replications (Construction Corollary).

Personal knowledge is thus assessed and reassessed over time, forming a framework of events which having taken shape, assume meaning as a cognitive structure. It forms an ongoing process whereby an individual through their participation changes a situation, which reconstructs and alters their evaluating criteria and simultaneously has the effect of transforming that person through raising their level of consciousness. Each person thus develops a cognitive framework consisting of a unique set of ordinal construct relationships (Hierarchical Corollary).

The interaction between and reflexivity of image and behaviour in Personal Construct Theory forms a dialectical process in cognitive structuring whereby people may mould themselves through their pursuit of extending their level of consciousness as to their own way of understanding. However, a person's development is limited by the range of constructs available to them as well as their own ability to utilise as many of these as is convenient (Modulation Corollary). A person too, may successively employ a variety of construction subsystems which are inherently incompatible with each other (Fragmentation Corollary) but which enable the individual some benefit.

Personal Construct Theory must by nature be a complimentary evolving social theory explaining people's behaviour within the context of constantly developing construing systems. In the face of seemingly
ever-changing reality, then, construct theory argues that we cannot know reality or truth directly but only through our construing systems. The fuller understanding of other people's behaviour then is sought through penetrating their construing system. Kelly's (Bannister and Mair, 1968, 12) final Sociability Corollary states in this connection that 'to the extent that one person construes the construction process of another, he may play a role in the social process involving the other person'.

3.2 CRITICISM OF KELLY'S PERSONAL CONSTRUCT THEORY

Major criticisms have been directed at Kelly's (1955) Personal Construct Theory in two overlapping areas. The first criticism is that the sole aim of people's behaviour is not merely to extend their knowledge but that it is directed at benefitting their own material wellbeing. The second is that people do not experience in a context of free choice, but rather they experience in a context of certain constraints that need to be taken cognisance of.

3.2.1 People as 'proto-scientist' criticism

Hudson (1980) argues that Kelly (1955) ignores 'the practical person' in favour of 'the academic person'. Kelly (Bannister and Fransella, 1971) sees the individual in search of a perfect construct system based solely on knowledge acquisition. Thus he regards that person as a 'proto-pure scientist' whereas a more appropriate analogy according to Hudson (1980) may be that of 'proto-applied scientist'. As with Hudson (1980), Shotter (1975) criticises Kelly (1955) on his overemphasis on a person's acquisition of 'objective knowledge' rather than 'use knowledge'. That is to say, Kelly neglects the praxis aspect of people. The term 'proto-applied scientist' is more appropriate since behaviour is motivated more towards, for example, the satisfaction of physical or material needs, knowledge being gained as a byproduct of such action. Bannister (1977) also attacks Kelly (1955) for divorcing behaviour from cognition in all but the sphere of actively acquiring and verifying knowledge. Cox (1981, 261) incidentally, makes very similar criticisms of behavioural geography noting the 'neglect of the social; and the separation of subject and object'. The weakness of Personal Construct Theory in 'omitting motivations other than learning and neglecting decision making make it unsuitable as more than a theory of cognition' (Harrison and Sarre, 1976, 381).
Another shortcoming of Kelly's (1955) theory is noted by Fransella and Bannister (1977, 116) when they state that 'Kelly pointed out that a construct only has meaning within a context and through psychologists using the grid have varied the subsystem they have explored by varying the elements, little attention has been paid to the context within which people construe'. Other major criticisms of Kelly's (1955) theory and those of investigating meaning systems are directed at just this shortcoming.

### 3.2.2 Construing context criticism

Shotter (1975) criticises Kelly (1955) for not recognising individuals as operating within their historical, natural and cultural contexts. That is to say, the structuring effect on consciousness by the sum of historical and cultural events giving rise to a person's value system is neglected. In much the same way, Procter and Parry (1978) criticise Kelly (1955) in that through concentrating on the individual, psychology ignores the important role of social processes. They argue for greater recognition of the social nature of meanings and values, denying that individual construct systems can be studied separately to the ideology of the society in which they live. They state 'the dialectic between the constraint of our culture and our personal freedom is our fundamental concern and one which we believe Kelly substantially resolved, although he left the sociological aspect unresolved'. They maintain too that the 'individual construct systems are constrained by the structure and ideology of the society' (Procter and Parry, 1978, 160) as very often the amount and kind of evidence at their disposal limits their ability to maximise opportunities of self fulfillment and so inhibits personal progress.

Here too, Sève (1975, 50) questions the logic of the expanded reproduction of activity were the structural effect omitted in the analysis. He sees human activity as 'a consequence of the relationships constitutive of human mental processes' but reverses the original homeostatic schema 'need-activity-need' into a historical schema of 'activity-need-activity'. This he notes 'includes not only the basic historical nature of human needs but, even more, their subordinate position in the reproduction of activity' (Sève, 1975, 50). In other words, people's immediate activities and decisions are primarily motivated by their structural environment.
It would seem then, that Kelly (1955) sees human progress in terms of knowledge acquisition but neglects the veto placed on that progress by the socio-economic institutional context within which an individual operates. His field of analysis appears to be too narrow in that it fails 1) to recognise the structural determination by institutions and 2) answer why people do behave in the way they do. It is apparent that in addition to the attention paid to the social context within which the individual construes, the physical and ideological component of that context should also be examined. In this regard Marxists and the radical school of thought provide a major contribution. The particular pertinence of the ideological aspect to Kelly's (1955) theory will be made more specific in this following section.

### 3.2.3 The ideological component of the individual’s social context

People are more or less free of socially and culturally determined values for their personal construct framework by dint of two factors. One factor is the extent to which the dominant ideals have been internalised by the individuals while the other is the level of awareness or consciousness an individual has attained of their independence from dominant ideals (see Procter and Parry, 1978). These two factors are mutually exclusive, since the more internalised a dominant ideology becomes in a subordinate culture, the less it is that the level of consciousness will be naturally raised.

Apparently, however, depending on the niche an individual occupies within the division of labour, structural constraints will vary and so too will each interest group's value or meaning system and consequent behaviour. Parkin (1971) attributes different individual behaviour and construing systems to the nature of the 'meaning system' an individual draws upon and the extent to which the dominant ideology has been institutionalised. In western capitalist societies he identifies three major meaning systems based on occupational stratification:

1) **Dominant value system** -- forming the major institutional order endorsing existing inequalities through rewards on differential/aspirational terms.

2) **Subordinate value system**, where the moral framework promotes accommodative responses to the facts of inequality and low status,
3) **Radical value system**, where the moral framework promotes an oppositional interpretation of class inequalities.

Parkin (1971, 90) denies that there is one corporate value system for a community since the meaning system 'entails a macro-social view of the reward structure and some understanding of the systematic nature of inequality' based on socio-economic definitions of class. Subordinates adapt the dominant meaning system to suit the particular situational constraints of their lower status, creating a negotiated form of dominant dominant values rather than a completely different cognitive system (see also Procter and Parry, 1978). Those in the lower levels of the status hierarchy operate on two levels, i.e. 1) the abstract or ideological and 2) situational or experienced levels to provide themselves with a meaning system for evaluating the self.

Stewart and Blackburn (1975, 484) note that differential distribution of power in society does not enable the lower status groups to determine the nature of its structure and that 'the privileged have greater freedom to choose their position within the structure'. The system then does not operate in favour of the lower status groups and there is little chance for them to implement their ideals anywhere other than in their immediate surroundings. In expressing their preferences, then, this group may respond at the level of inculcated ideas and desires drawn from the dominant ideology, whereas in everyday existence values may be a function of experienced constraints. Stewart and Blackburn (1975, 502) query how 'if the differentiation within the social system is not normally approved, does it happen that members of that system restrict their judgements of satisfaction to a very narrow context, while conscious of the different rewards enjoyed by those in superior positions?' They conclude that people tend to gauge their situation within the limitations of the experienced adversity. That is, they respond with statements of satisfaction regarding their context of external constraints but do not respond on the level of 'liking', expressing what is desireable. In this regard too, Konrad and Szelenyi (1977, 171) note:

'One frequently notices though, in the course of carrying out surveys, that people who are socially disadvantaged take a realistic and hence a pessimistic view of the low likelihood of their being able to change their situation; hence they tend to see their current situation in a favourable light when questioned and show less desire for change than their
actual dissatisfaction would, in other circumstances, create, It is precisely those who are privileged, in particular professional people, who tend to openly express their dissatisfaction with their actual situation, and it is they who are in fact most able to move, both within the housing and within the settlement system, and who do so. The socio-psychological preconditions for a criticism of reality are generally created by the real existence of a chance of a change.'

This radicals explain, is a consequence of an individual's relation to the means of production. That is, the relational aspect of class where capital by controlling labour practices under specific social conditions, produces the superstructure which in turn comes to control people. In situations where individuals cannot participate in every stage of the production process, a distorted version of reality emerges which promotes a fetishised view of the world. Consciousness then becomes ideological, serving class interests.

Two major approaches to analysing ideology have been those of Althusser (Bottomore, 1981; Callinicos, 1976; McCarney, 1980; McLennan, et al., 1977; Saunders, 1981) and Gramsci (Boggs, 1976; Callinicos, 1976; McCarney, 1980) who both regard ideology as a product of the institutional superstructure governing society. At the level of the individual, Althusser (Bottomore, 1981) maintains that ideology is profoundly unconscious and is itself structural in that it in turn comes to determine everyday life. He sees, together with Gramsci (McLennan, et al., 1977) ideology as the lived relation between people and the world and maintains that individuals through enacting their ideology on the world become conscious of their position and alter that lived relation. In the process, a superstructure is created which dictates how people relate to each other. Althusser (McLennan, et al., 1977; Callinicos, 1976) sees it as a relatively autonomous but necessary condition of the economic base of society. He recognises the importance of reciprocal relations but maintains that the base ultimately determines the superstructure. For Althusser (Callinicos, 1976), ideology mediated by the institutions of the superstructure is the product of how people relate to each other within their contextual environment. Ideology as a socialisation process thus has an essential and cohesive function in society. The role of the state here is pivotal in universalising class interests into general interests through state apparatus. These interests, mediated by the superstructure promote the status quo through consent.
Gramsci (Boggs, 1976) on the other hand, is more concerned with a specific ideology, i.e., a revolutionary ideology, than with ideology in general. He recognises that structures determine and shape human activity but in turn become changed themselves. In this context the oppressed strata become aware and change and transform the limitations imposed by class structures. He maintains that it is within the superstructure that people gain consciousness. Consciousness is relative to class, conferring power to those who may use state apparatus to legitimate their position. Gramsci (Boggs, 1976, 47) notes that '...ideological domination rather than political coercion had become the primary instrument of bourgeois rule'. In order for Marxism to achieve the status of a liberating philosophy it would first have to learn how to analyse and transcend 'common sense'. He foresees that the struggle for ideological hegemony needs first to penetrate the 'false world of established appearances rooted in the dominant belief systems' and then to create an entirely new world view based on 'ideas and values that would provide the basis for human liberation' (Gramsci quoted in Boggs, 1976, 42). At present ideology 'mystifies and induces the oppressed to accept or consent to their own exploitation and daily misery' in everyday life (Gramsci quoted in Boggs, 1976, 40).

Both Gramsci and Marx (McCarney, 1980) vest a revolutionary consciousness in the proletariat, reasoning that because they control the labour commodity in society, they are in the most powerful position to actively reveal reality through the unity of theory and praxis exercised in everyday living experiences. That is to say, the proletariat are the philosophers and theorists of society who are capable of actively removing self deception and delusions of 'rationality' imposed in the process of socialisation, through direct confrontation with actuality.

3.2.4 Kelly's assertion of 'man the scientist' revisited

For Kelly (Bannister and Fransella, 1971) 'man the scientist' could transcend his position in society by acquiring more knowledge and thus heightening his level of consciousness of reality. Both Kelly (1955) and marxists propose the scientific method for individual acquisition of knowledge. However, where the two approaches differ is in their concept of what is scientific knowledge and what is ideological or bourgeois knowledge. Scientific knowledge reveals reality and with it increased levels of consciousness. Bourgeois knowledge on the other hand is
mystifying, ideological knowledge promoting bourgeois interests and lowering working class consciousness. According to marxist theory, the manner in which people conduct their everyday activities determines their levels of consciousness. Kelly (1955) on the other hand would maintain that consciousness dictates how people react in everyday life and he would take less cognisance than the radicals do of how a person's wider social, economic and political contextual structures dictate their behaviour.

Radicals would not deny many of Kelly's (1955) arguments. For one, they would support the contention that people respond to their immediate environment in the process of knowledge building. However, their method of inquiry and affirmation would be interpreted as a result of inculcated socialisation. Thus people would never uncover the true nature of reality in the way Kelly (1955) suggests. Knowledge, according to radicals can only be uncovered through the scientific procedure eminating from an enlightened view of reality. Kelly's (1955) theory to them merely postulates how people become better versed in the dominant ideology. That is to say, individuals learn how to reinforce and confirm distortions of reality and so legitimate the status quo together with the exploitative capitalist system. What is overlooked is that the physical structural environment is fashioned to conform to ruling ideas and is geared for purposes of the capital accumulation process. If these appearances are treated as 'facts' they can be used as scientific evidence to legitimate an ideology, i.e. a bourgeois ideology. The cognitive structure will then come to reflect the dominant ideals. Marxists would argue that people could never attain full consciousness while searching for an ideological framework which accords with experienced reality stated in these terms. Ideas cannot evaluate reality but would only reflect an ideological or distorted form of reality. It does appear that the class struggle from the radical perspective, is an ideological and not an economic one, although it is ultimately in the economic realm that ideology is enacted.

In conclusion then, Kelly's (1955) Personal Construct Theory does have some major shortcomings in understanding people's actions in their struggle for greater consciousness. This struggle, Kelly (1955) infers, is motivated primarily by knowledge acquisition and not material welfare. Moreover, marxist oriented critiques point out that greater consciousness and therefore 'rational' and 'free' behaviour is inhibited by institutional
structures of society while the more liberal minded critiques point to the inhibiting socio-cultural and economic forces which people, through conscious individual effort have to try to overcome. Gans (1977) recognises that, especially in heterogeneous societies, the struggles between diverse groups is not only over political and economic issues but extends also to cultural ones. That is to say, the issues between groups of people are not merely ideological and materialist but rather the product of these two, the legitimation of people's differing meaning systems or values. The complex interplay between the various parties representing the macro system and those at the micro level, and how each strive to establish and legitimate their ideals within the contextual, residential environment, forms the focus of the next section.
CHAPTER FOUR

THEORETICAL ASPECTS OF HOUSING

This chapter studies the contextual environment as the product of activities initiated on the national level. This environment forms the milieu within which the individual residents enact their decisions based on their conceptual frameworks. The purpose here is to investigate the respective liberal and radical interpretations from the macro scale regarding the formation of these contextual environments. Initially each perspective will be outlined and then related to its view on the forces involved in the evolution of the present housing environment. Aspects in which South Africa differs from other western countries experiencing similar social problems will be noted. Central to the analysis is the role that the degree of incorporation into capitalist social relations plays regarding the interplay between parties in the evolution of these environments.

4.1 THE LIBERAL PERSPECTIVE

Liberalism, according to Bullock (in Johnston, 1979) may be defined as a belief in a combination of democratic capitalism and the responsibility of executive and legislative action to alleviate social ills. Johnston (1979, 151) states that the concern of liberals is 'that all members of a society do not fall below certain minimum levels of well-being (variously defined), and are prepared for state action within the capitalist structure in order that this can be achieved'.

The purpose of liberal social geographical research is to scientifically map and study spatial variations in levels of wellbeing between groups of people in an attempt to identify the extent to which and with respect to what commodities different groups of people experience inequalities. In so doing purposeful action may be initiated to enable these groups to overcome such inequalities.

Work done by Coates, Johnston and Knox (Johnston, 1979) identifies three scales and three causes of variations in explaining spatially discrepant levels of wellbeing. The scales of variations occur at the
international, intra-national, and intra-urban levels while division of labour, accessibility to goods and facilities and the political manipulation of territories are seen as the causes of spatial variations. Of these, division of labour is identified as the primary determinant of levels of social wellbeing. Although division of labour here is identified as a social and not a spatial process, the researchers point out that it does have clear spatial consequences.

Inequalities then are the products of social and economic determining structures and it is the spatial reorganisation and reform of these, based on moral and efficiency imperatives that greater equity within society can be anticipated. Inequities liberals see as a result of the malfunctioning of the state apparatus and prescribe reform of the various components constituting society in order to enable the more efficient functioning of bureaucracy through more equal power sharing in a free enterprise system. For example, Pahl (1977) calls for more politically accountable officials. In this way, it is assumed, people will have incentive and representation enough to enable them to get what they want, where they want it and in the quantities they require. The spatial organisation of the physical environment can be seen as an important component in determining the allocation of opportunities as well as the more equal redistribution of wealth within society. Pahl (1977) for instance, sees how people are located in space as affecting and even determining their 'life chances' through limiting their social and economic opportunities of access to and control over, resources.

To achieve this reform, liberals aim then to reveal social and spatial malfunctionings and injustices, and to encourage metropolitan integration, community control and population redistribution in relation to the means of production and social goods and services. In this way they hope to contribute towards designing a 'spatial form of society in which people can be really free to fulfill themselves' (Johnston, 1979, 155). It is accepted within the liberal paradigm that every individual within their reformed democratic social context will be able to improve their state of wellbeing through their own individual efforts and initiative. The emphasis of the liberal standpoint is to initiate changes in the local environment that will gradually force wider reforms until the entire system becomes readjusted to one of greater equity. The development of a functional residential environment can then be seen as vitally
important as it is here at the very local level that individuals can be assisted to gain power over determining their own lives and so reform the system. Any attempt at enabling people to gain this freedom of authority over their own lives is seen as a positive step toward the development of wellbeing of the individual and society as a whole. The belief is that equal access by individuals to economic opportunity is the key to the wellbeing of individuals and society.

In the liberal paradigm, then, it is generally endorsed that social development is a natural linear progression through stages from a state of subsistence based economic organisation towards one based on an advanced capitalist order. The urbanisation process with all its concomitant social ills are taken as an inevitable part of development which at best can be only alleviated through democratic representation of the various interest groups participating in the development of the economic system. The extent to which each group is represented and may participate in the efficient functioning of the economy determines the rate at which the social and political system progresses and development may take place.

4.1.1 The liberal view of the South African situation

The modernisation model described above forms the basis upon which the liberal school interprets the South African situation. The essential difference between South Africa and most other western countries experiencing similar social problems (such as housing crises for the urban poor) is the racial nature of South African society. That is, there has been consistent racial discrimination in favour of a white minority. This has been supported politically by discriminatory legislation such as the Apartheid policy of the nationalist government. The government has displayed gross negligence and irresponsibility according to the liberal view, by neither providing adequate accommodation nor enabling the blacks to provide it for themselves in the urban areas. This neglect has now manifest itself publicly with unprecedented urgency in the form of, for example, the Soweto riots of 1976 and industrial strikes -- issues which, if left unattended, would have disastrous economic consequences.

The fact that development and progress cannot be sustained without the black labour force makes the liberals even more emphatic about what
they see as the gross political mismanagement and shortsightedness of government in this country. The major attack of the liberals on the state, then, is to open up legal channels for the incorporation of the lower socio-economic group into the economic system. Class will then be based on a more democratic socio-economic system of incorporation rather than a racial one. A major means to this breakthrough is identified in the residential environment, especially as commissions of enquiry (e.g. the Riekert and Viljoen Commissions) confirm that the reasons for dissatisfaction amongst the blacks are their inadequate living conditions. It is in the realm of consumption in the residential environment (e.g. property rights) that the liberals are hoping to enable the urban poor to get a stake in the economy and so improve their position. According to the liberal view, greater and more equal representation within the system is seen as the means whereby the urban poor may legitimate and themselves institutionalise their own values and meaning systems.

Emphasis from the radical perspective is on people's relations in the sphere of production. It is the manner in which an exploitative relation of capital over labour is maintained which receives much interest by the radicals. The radical view of how the contextual residential environments of the urban poor are produced will now be reviewed.

4.2 THE RADICAL PERSPECTIVE

Since the liberal perspective is the most well documented interpretation of the evolution of the contextual environment in past research, this section will initially outline the radical perception of the nature of crises and the role the state plays in the process. Discussion will then turn to state intervention in the residential environment and its human consequences.

4.2.1 The nature of crises

The radical paradigm unlike that of the liberal, does not condone the capitalist system. It bases its assumptions on the fundamental contradiction between the capitalist and working classes which it says is inherent in all forms of the capitalist mode of production. Castells (1977) notes the contradiction in the way the capitalist system is
structured, in that it forces people to become more dependent while believing they are becoming more independent. For example, the capitalist logic dictates the need for centralised production to acquire economies of scale but also requires privatised commodity consumption. People are encouraged to be more specialised and individualised in the production and consumption processes, but are constantly forced to be more socialised in the places of production and consumption to minimise the costs of production and reproduction of capital and capitalist social relations.

Further contradictions occur in the production process in capitalism which lead to crises within the system. During the laissez-faire stage of economic development market forces may act as a self regulating device. However, there is a tendency toward greater concentration of capital in order for capitalists to achieve economies of scale. Monopolies develop and dominate the system as a result of competition between individual capitalists. The system becomes counterproductive as it compels capitalists into sometimes vicious competition in order to survive against rival capitalists.

Before the development of monopolies capitalists, driven by the profit motive, seek to reduce costs of all inputs into the production process. Capitalists can then become instruments in technical progress (Jessop, undated) investing in constant capital (rather than variable capital) to enhance the capital accumulation process. This serves as a short term solution whereby capitalists seek to exploit maximum surplus value at the source of production with minimum investment in variable capital essential to the production process. Capitalists legitimate low investment in variable capital ideologically by redefining what the socially necessary consumption for workers is in order to survive. That is, capital redefines the minimum standard of living necessary for labour to reproduce itself. The changing relations between necessary and surplus labour time involves class struggles between workers and employers over the length of a working day, overtime, mechanisation, and speed and intensity of work (Moss, 1981, WIP 22).

Eaton (1966) notes that capitalism creates poverty, initially through eroding the traditional mode of production and then undermining the purchasing power of the very people that it has drawn into its orbit.
Crisis is not a result of overinvestment as bourgeois economists maintain but it is rather the result of overproduction and is an expression of contradictions inherent in commodity production for profit.

4.2.2 The role of the state in the capitalist formation

Given that profits are the motive force in capitalist activities, the greatest threat to profits is the disunity of the capitalist class and the unity of the exploited class. As an intermediary, the state adopts a crucial position in modifying and regulating market forces in a certain phase of the capitalist development process. This phase is identified as that dominated by monopoly capital. Here economic development is no longer regulated by the market mechanism and requires intervention by a body ostensibly neutral and autonomous, i.e. government, to co-ordinate affairs.

Three points of view regarding the role of the state under monopoly capitalism will be considered here, namely those of Poulantzas (Blackburn, 1972; Hirsch, 1981), Miliband (Blackburn, 1972) and Wolpe (1980). According to Poulantzas (Hirsch, 1981), the role of the state is to act relatively autonomously in uniting the capitalist factions in society and to regulate the struggle between antagonistic classes. Poulantzas (Wolpe, 1980) does not see the state as a neutral instrument of political administration used as a tool by any one class. In other words, the state at times must respond to dominated as well as dominant classes to balance contradictions within the politico-historical class struggle. However, ultimately the state acts in the long term interests of monopoly capital which dominates the capitalist power bloc. In the process of unifying an inherently fragmented capitalist class, the state also fragments the dominated classes. This it achieves by means of repression and coercion without undermining the continued domination of the ruling class and the reproduction of the dominant mode of production. The creation of atomised individuals takes place at the ideological level through institutional socialisation.

In debate with Poulantzas (Blackburn, 1972, 259) over how the state operates, is Miliband (Blackburn, 1972) He maintains that as the ruling class dominates the system 'the state is not 'manipulated' by the ruling class into doing its bidding: it does so autonomously but totally because of
the 'objective relations' imposed upon it by the system', Miliband (Blackburn, 1972) sees the state as a product of the system inevitably determining in favour of the ruling elite. Miliband (Blackburn, 1972) understands the state in terms of its function as the executive arm of the bourgeois elite. He sees the government and bureaucracy irrespective of social origins, class situation and ideological dispositions all as subject to the structural constraints of the system.

Both Poulantzas (Blackburn, 1972) and Miliband (Blackburn, 1972) argue that besides ideas, customs and morals it is institutions themselves that also embody ideology. Miliband (Blackburn, 1972) recognises that the state is increasingly involved and plays an extremely important role in the process of 'political socialisation' and that institutions are a part of the system of power linked to and buttressed by the state. However, Miliband (Blackburn, 1972) disagrees with Poulantzas (Blackburn, 1972) in that he maintains that institutions do not form part of the state but rather are part of the political system. That is to say, institutions are autonomous of the state but function to serve bourgeois interests since it is these interests which dominate and determine the political system.

Wolpe (1980, 412) refutes both views that the state is an 'autonomous regulator of social formation' and 'a simple political instrument of power already established in the economy'. Instead, he views the state as both subject and object of the class struggle. By this Wolpe (1980) means that the state itself becomes the arena and a participant in the battle between classes. In Wolpe's (1980) view, it is this struggle which gives rise to the type of state and not the type of state which determines the class struggle.

The essential role of the state then, is to organise a bourgeois democracy for the smooth operation of the capitalist mode of production (Jalée, 1977). To this end the state must secure certain preconditions in order that the capitalist mode of production reproduces itself and its capitalist social relations. It requires an institutional structure and recognised legal forms of intervention that enable it to reconcile class antagonisms while simultaneously maintain demand and reorganise consumption. The state while uniting the activities of capitalists through their common interest in profit, distracts labour's attention
from their common grounds for unity (i.e., capitalist exploitation) through the ethic of individuation and democracy in the privatised consumption sphere. That is to say, through repressive, ideological and political means the state apparatus diffuses working class unity. The state using any or a combination of these means intervenes on behalf of capital to legitimate exploitation in the name of 'free enterprise'. It thus also encourages the atomisation and individualisation of people through appearing to represent the political unity of individual civilians and to safeguard and promote their united economic interests.

Keynes (Eaton, 1966) suggests that the capitalist system is kept operating only through state intervention in order to eliminate unemployment and crises. He maintains that the capitalist system, if left to its own devices, would lead naturally to unemployment since it does not generate enough effective demand. People, through state intervention should then be encouraged to spend, not save, for the system to operate smoothly.

Government, as part of the political superstructure becomes central during economic crises to minimise friction between classes in the capital accumulation process. It restructures socio-economic relations to accord with the priorities of the capitalist mode of production and attempts to compensate for the social consequences of these developments (Hirsch, 1981). This takes place typically in the residential environment.

4.2.3 The role of the state in housing

Increasingly the housing problem is being interpreted within its wider structural context of contradictions inherent in the institutions of capitalism (Stone, 1977). It is erroneous to divorce struggles in the work place with those in the living place. Harvey (1978a, 123) comments that increasingly productivity in the workplace is linked with coercion in the living place, saying 'The more workers have the capacity to press home wage demands, the more capital becomes concerned about the cost of shelter'. Stone (1977) notes that the state intervenes to diffuse dictates socially and ideologically thereby preventing radical consciousness and action by those who could threaten the capitalist mode of production. This requires state intervention at the living place. Castells (1977, 74) states that 'the state becomes, through the arrangement of space, the real managers of everyday life'. That is, it
comes to control everyday life in the realm of collective consumption, dislocating issues rooted in the place of production to the place of reproduction. Harvey (1978b, 21) supports this view noting that the built environment 'can be constructed by capital as a coercive force in the interests of sustained accumulation', especially when state intervention in the living place actually defines for labour their standard of living and their required quality of life.

An ideological battle between the classes then ensues over the very meaning of life and what constitutes a desirable lifestyle. This is also a struggle over the legitimacy of instituting a certain meaning system. Essentially the battle concerns how the state appropriates and reinvests surplus value. This revolves around the diverse interpretation of values embodied in the built environment by the two classes. Capital on the one hand interprets the built environment in terms of exchange value while labour on the other hand does so in terms of use value (Harvey, 1977c). The deciding factors in resolving the conflict lie in the relative powers and options, economic and political, available to each class. State alliance with one class or the other will inevitably be with the aim of procuring hegemony of the capital accumulation process. For instance, state may intervene on the side of labour against excessive rent appropriation. This is where overexploitation in this sphere may threaten the profits of the industrial capitalist classes. In so doing, the state appears ostensibly 'just' in its actions (see Poulantzas in Blackburn, 1972).

In much the same way, state reaction to labour's demands against excessive exploitation by capitalists may take the form of concessions in the living environment. Capitalists are thus relieved of having to concede to higher wage demands in the work environment. The ideological coercion of labour to capitalist values through the home environment is explained by Harvey (1978b, 24) as follows: 'A persistent theme in history of the advanced capitalist countries has been to look for those improvements in the living place which will enhance the happiness, docility and efficiency of labour'. In this regard he cites Pullman's experiment of creating the 'ideal' township for his industrial workers in nineteenth century Britain. State provided housing may be interpreted as a packaged relationship to nature in the living space as compensation for an alienating and degrading relationship to nature in the work place. As
labour becomes more militant in its demands in the work place so the concessions necessary to coerce them may appear more drastic. For example, labour may be granted private property and homeownership under the illusion of greater independence and freedom of choice in the living space. However, this move actually promotes capitalist interests through encouraging 'possessive individualism' and commodity fetishism. The greater privatisation and individualisation effected by property and homeownership fragments the unity of the working class, and disguises the source of their exploitation.

Kemeny (1980) points out the political control and social stability associated with private property and homeownership. Dunleavy (1979) too notes that in many advanced capitalist societies political allegiances are now along private and public property lines rather than work situation and wages. This too, Harvey (1978b, 15) acknowledges, maintaining that 'A worker mortgaged up to the hilt is, for the most part, a pillar of social stability, and schemes to promote homeownership within the working class have long recognized this basic fact'.

The housing problem, when placed in its structural perspective, has then to be understood as more than mere provision of shelter. It is also an important arena for the class based contest over the definition and meaning of: use values; the 'standard of living' of labour; the 'quality of life', and even the concept of 'human nature' (Harvey, 1978b).

4.2.4 The radical view of the South African situation

The radical view of the South African situation differs from the liberal view in that they emphasise class as a relation within the capitalist mode of production rather than the racially differentiated incorporation of the working classes into the petite bourgeoisie. The radicals attribute the black housing crisis in South Africa to the compelling avarice of competing capitalists in the process of monopoly capital formation. For the radicals the racial aspect of inequality in South Africa resulted from the early identification of a cheap labour supply amongst those involved in the traditional (precapitalist) mode of production. Legislation resulting in the homelands policy, for example, was geared to have the reserves subsidise the low wages paid in the urban economies (Wolpe, 1972). This enabled capitalists to concentrate on investment in constant capital and plant expansion rather than on variable capital expenditure.
The onus of caring for labour's housing needs was placed on the state. The state, in turn, indirectly achieved labour's co-operation partly through social conditioning in the reproductive sphere by means of the differential allocation of rewards in the residential environment. For example, Lodge (1981) points to the careful screening process the relocated tenants were subject to prior to being sent to the new state-controlled townships such as Meadowlands. Only 'stable family units' were housed in these new locations. This lends additional evidence to the radical case that the authorities recognise social stability as a function of the disunity and fragmentation of the working class which can be promoted through the privatised 'stable family unit' ethic.

The creation of the petite bourgeoisie too, was significant in the process of stabilising and simultaneously fragmenting the working classes in South Africa. Here property ownership plays an important role as a factor dividing the interests of the working classes. For example, Lodge (1981) notes that during the destruction of Sophiatown in the 1950's the most vehement protestors against removals were the property owners who wanted to retain their advantaged position of incorporation. These people too were the leaders in the African National Congress. It was for this latter reason that government saw it necessary to break the unifying hold that these political leaders could exercise over the masses against their mutual oppression. People were consequently removed and 'appropriately housed' in uniform, single family units within the modern housing estates of such townships as Meadowlands.

Similarly Stadler (1979) notes how during the Mpanza squatter uprisings, government granted trading licences to those more established members of the community. This served again as a measure to stabilise those who accepted their position and role in a particular version of the capitalist system. These people then in protection of their own interests would be inclined to exert control over any disruptive elements within the masses.

The point to note here is the effectiveness of gradual and differential incorporation of selected groups of individuals into promoting the smooth operation of the capitalist accumulation process. Initially, disunity of the working classes was established through conditioning those who were not well versed in the system into the individualised ethic. This was
achieved partly through the residential environment as exemplified by the modern housing estate, which provided a 'suitable' environment within which appropriate capitalist values and conventions could be acquired by labour for their part in the continued capital accumulation process. Later, differential inclusion into the system created a petite bourgeoisie which acted as a stabilising force between the capitalist and the working classes. In South Africa the importance of the creation of the petite bourgeoisie has become evident after recent uprisings such as the 1976 riots centred in Soweto. Under these circumstances, capital in the form of private enterprise itself was forced to respond to the crisis of capitalism in the absence of a democratic parliamentary system to secure a more docile workforce. Programs were initiated through the Urban Foundation and these, covertly, through selective inclusion, lead to labour's institutional co-optation, for example through self-help housing and education programmes (see Fig. 1). In the residential

Fig. 1: Scale of project activity of the Urban Foundation, 1977-1981. (Lee, 1981. Financial figures are in R000's. Numbers of projects are indicated in brackets.)

<table>
<thead>
<tr>
<th>Project</th>
<th>National</th>
<th>Eastern Cape</th>
<th>Natal</th>
<th>Transvaal</th>
<th>Western Cape</th>
<th>Total</th>
<th>% of Total</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>500 (1)</td>
<td>596 (13)</td>
<td>2914 (7)</td>
<td>3448 (16)</td>
<td>614 (7)</td>
<td>8072 (44)</td>
<td>34</td>
<td>5458</td>
<td>30</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>502 (5)</td>
<td>2011 (29)</td>
<td>2015 (53)</td>
<td>2500 (33)</td>
<td>1141 (28)</td>
<td>8169 (158)</td>
<td>34</td>
<td>6625</td>
<td>36</td>
</tr>
<tr>
<td>Community Facilities</td>
<td>75 (2)</td>
<td>153 (23)</td>
<td>1120 (31)</td>
<td>1597 (47)</td>
<td>1623 (37)</td>
<td>4568 (14)</td>
<td>19</td>
<td>4220</td>
<td>23</td>
</tr>
<tr>
<td>Health Services</td>
<td></td>
<td>78 (5)</td>
<td>27 (3)</td>
<td>1008 (7)</td>
<td>93 (6)</td>
<td>1208 (23)</td>
<td>5</td>
<td>342</td>
<td>2</td>
</tr>
<tr>
<td>Research</td>
<td>91 (8)</td>
<td>86 (9)</td>
<td></td>
<td>228 (13)</td>
<td>41 (11)</td>
<td>446 (41)</td>
<td>2</td>
<td>227</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>504 (10)</td>
<td>15 (3)</td>
<td>268 (20)</td>
<td>198 (15)</td>
<td>411 (23)</td>
<td>1484 (71)</td>
<td>6</td>
<td>1315</td>
<td>7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1762 (26)</td>
<td>2939 (82)</td>
<td>6342 (114)</td>
<td>8979 (131)</td>
<td>3923 (124)</td>
<td>23945 (477)</td>
<td>100</td>
<td>18277</td>
<td>100</td>
</tr>
</tbody>
</table>

sphere programmes emphasising homeownership were increasingly promoted in the face of state legislation to the contrary, and all private enterprises were encouraged to support these measures. One can here identify the manipulation of capitalist values intrinsic in property ownership towards the blatant creation of a black middle class to protect the capitalist production process. Also the program proposed by the liberals is one which, according to the radical view, encourages
labour to actively participate in structuring an environment which will increasingly render them powerless in exerting control over their own labour power.

Given the essentially opposite theoretical points of view between the liberal and radical paradigms over the interpretation of the purpose and legitimacy of one group of people planning for or with another within a particular mode of production, communications between them may often lead to deadlock, as exemplified in the recent housing debate. Although essential, the theoretical frameworks within which analyses are made of the particular sector of the urban environment with which this thesis is concerned, they do have their limitations regarding value of explanation if not substantiated with actual situations. Consequently, before proceeding, the range of housing policies stressed over time within the South African black residential context will now be traced within the context of the two theoretical frameworks just outlined. Discussion will then concentrate on the most recent aspect of housing policy, i.e. self-help, and will consider its part in the housing debate which will be outlined. The term self-help itself will then be placed in its original anarchist theoretical framework to further demonstrate how terms take on different meanings when used in different theoretical contexts.
CHAPTER FIVE

SOUTH AFRICAN HOUSING POLICY

In this section the range of housing policies adopted by the South African authorities will be historically outlined. Within the discussion, phases receiving particular emphasis by the authorities at different times will be indicated. For example, initially state concern was with slum clearance and its apparent solution was sought in the modern housing estate, site and service and finally self-help schemes. Regarding the latter, discussion towards the end of this section will concentrate on the recent housing debate which essentially revolves around the nature of self-help. Again the major sources of research on housing policy in South Africa have been interpreted from the liberal paradigm, This bias is consequently reflected as such in the discussion. However, this will be interspersed, from time to time, with comment from the radical view.

5.1 HOUSING POLICY EMPHASES

McCarthy and Friedman (1982) elaborate on a scheme proposed by Borja (1977) which suggests that three historically contiguous phases may be identified regarding state responses to the contradictions of urbanisation under peripheral capitalism.

(t₁) a period of the creation of the productive infrastructure necessary for purposes of capitalist accumulation.
(t₂) a period of consolidating social control within the reproductive sphere.
(t₃) a period of physical and ideological intervention, especially in the reproductive sphere. That is, the residential environment is increasingly seen as an area for increased profits through construction and financial investment in conjunction with emphasis on for example, homeownership.

Discussion here is concerned with the relationship of these historical phases with South African housing policy. Liberal views on South African housing policy to date will form the basis from which discussion will take place.
Housing policy in South Africa, according to Dewar and Ellis (1979), has tended to be piecemeal but ineffective for any long lasting solution to the housing problem. They suggest that South Africa does not appear to have had a clearly defined housing policy in that there are no clearly defined goals and no apparent aims of a planning policy. They note that 'because no overall developmental aims or goals exist, short term objectives are set outside a rational framework...and the 'housing problem' is usually interpreted as being merely a shortage of houses' (Dewar and Ellis, 1979, 8). The approach to the housing problem has consequently been the technical provision of greater quantities of houses through mass building programs. Housing policy in South Africa has thus become primarily directed at producing quantities of cheap but high quality units. Dewar and Ellis (1979, 78) comment that 'Almost all financial and research resources are directed towards this end, and almost all regulations and other controls are aimed at this objective'. Also subsidised housing for blacks is almost entirely provided by the state or local authorities (Dewar, 1979).

The state then, apparently has total control over black housing and its policy should be viewed with this in mind. The liberal view as proposed by Morris (1981) understands the progression of state housing policy in South Africa as follows:

During the initial stages of urbanisation ($t_1$) when state took an interest in the black residential environment (from 1923 in Morris's scheme (see fig. 2)) state focus was on property rights and the control of black urbanisation. The 1923 Native (Urban Areas) Act, for example, aimed at the establishment of hostels, locations and native villages. Thereafter policy appears to be the 'benign neglect' of urban black residential areas as no-one was prepared to take responsibility for housing 'temporary sojourners' in urban areas. In response to a critical housing shortage experienced by blacks during the late 1940's, government took responsibility for black housing and vigorously pursued a policy of supplying a cheap, modern, westernised model of house in the form of suburban housing estates. To alleviate the expense of state financed standardised black housing, alternative methods, initially site and service during the 1960's, and later during the late 1970's self-help schemes were implemented. 30 year and 99 year leaseholds were granted.

1According to Hellman (Morris, 1981) Grahamstown's Fingo and Hottentot Village was one of only two native villages set up at this time.
Fig. 2:
CONCEPTUAL DIAGRAM OF AVAILABLE HOUSING AND OF POPULATION JOHANNESBURG 1910-1980

Note: This diagram gives an overview of the housing available in an urban area like Johannesburg, in relation to population growth, finance policies and historical phases outlined in this study.
and withdrawn intermittently with the initialising of each new phase in the policies, e.g., the 30 year leasehold during the 1962-1968 period of site and service schemes and 99 year leasehold and homeownership schemes from 1978 when self-help schemes were initiated. Housing policy is now being directed at this latter stage where state is encouraging private enterprise to financially help employees to obtain proper housing.

Although radicals may agree with liberals on actual historical events regarding South African housing policy, each perspective would interpret these events differently. The point made by McCarthy and Friedman (1982) in their paper is that the media rather than acting as an independent indicator of social issues, in actual fact reflects those areas of state concern. That is, one may argue that the initial thrust in the late 1940's by the state was to systematise and organise blacks in the residential environment by means of the modern housing estate. Recent changes in South African housing policy may then be in the face of a reaction to protests within the black residential environment and constitute reevaluating methods of achieving those same objectives.

A cursory investigation of media coverage using The Star newspaper, regarding state interest in the black residential environment may substantiate this argument (see Fig. 3). The graph was derived by means of a content analysis of The Star newspaper over a period of fifty years. Ten five-year periods were established from 1930-1980. For each five-year period the total number of articles which were concerned with 1) slum clearance and 2) state assisted housing projects were calculated and plotted as a percentage of all issues concerned with media interest in the black residential environment.

The timespan on the graph ranges from 1930-1980 and reflects initial state concern with slum clearance. An increased interest in state assisted housing projects rockets during the late 1940's, corresponding with the initiation of government implementation of the modern housing estate policy. This signifies $t_2$ in the modified Borja (McCarthy and Friedman, 1982) scheme.
Fig. 3: Graph indicating state concern with the black residential environment, 1930-1980.

In the period after the 1960 Sharpville uprisings ruling class interests in state subsidised housing, including this time site and service schemes, is reflected in the media. Finally, corresponding with the period subsequent to the Soweto riots of 1976, state concern is apparently displayed in self-help housing. \( t_3 \) begins in the 1960's where homeownership and leasehold is stressed in housing policies. It has become increasingly emphasised by the authorities and private enterprise in recent self-help housing and 99 year leasehold schemes. Throughout it seems the authorities never relinquish their faith in the policy of building planned housing estates (see Morris, 1981) — perhaps a necessary requisite in the socialisation through the physical structural environment of those who are being newly urbanised.
The changes in policy then run concurrently with the Borja (1977) scheme modified by McCarthy and Friedman (1982) in that state reaction is one of response to changing sets of contradictions inherent in the urbanisation process under peripheral capitalism. The liberal view however, tends to detect the varying emphases on the modern housing estate, site and service and then self-help as means to the provision of shelter which, over time is gradually catering more for lower income group housing needs. That is, they do not detect the phases of housing policy as reflecting changing relations in the capitalist accumulation process. The reaction to South African housing policy is consequently perceived differently within the liberal and radical paradigms. Reaction to these policies, in particular, self-help housing have recently been hotly debated between representatives of these two paradigms. This debate serves to illustrate how arguments emerge at cross purposes when radical and liberal proponents conceptualise differently a common term used within the context of a certain mode of production.

5.2 THE HOUSING DEBATE

During 1980 issues over housing were debated between proponents of the liberal and radical viewpoints. The debate was initiated between Dewar (1980) and Wilkinson (1980) but unfortunately has received relatively little attention and elaboration by their respective liberal and radical supporters. The nature of the debate centred around two issues. Initially it focussed around the problem of what self-help housing ultimately achieved. Later this developed to question the validity of the fundamental assumptions upon which the two paradigms based their arguments. This development perhaps lead to the deadlock and breakdown in communicating each point of view, and hence the termination of an unsatisfactorily concluded debate. The following section will briefly outline the course of the housing debate.

Wilkinson (1980) initiated the debate with an article on the radical interpretation of the housing question within an understanding of the political economy of housing in South Africa. Housing, he maintains, has value for capital and labour over and above that of providing shelter. For labour it primarily incorporates use value in its physical location with regard to facilities, community, etc. in that it occupies land which has 'spatial exclusivity'. Capital regards housing as a
commodity which, through embodying exchange value, enables it to 'contribute to the reproduction of capitalist relations of production, in terms of providing additional areas in which the basis of capital accumulation may be expanded' (Wilkinson, 1980, 27). It thus also helps the capitalist system overcome tendencies of periodic crises in over-accumulation through providing opportunities for profitable investment. However, for the efficient co-ordination of these efforts state intervention is required. Housing thus also becomes an instrument of social control as well as a means of mass collective consumption through the state, ensuring the 'provision of the complex physical and social frameworks essential for these processes to occur' (Wilkinson, 1980, 25). To ensure maintenance of bourgeois hegemony and divert labour's consciousness away from the origins of alienation, capital through repressive and ideological means encourages labour's participation in the capitalist system through a compensatory but commodified living environment fashioned to the needs of capital.

Wilkinson's (1980) criticism of self-help is directed at the fact that in the process labour is doubly exploited. Not only is labour providing cheap labour power in the production process but also they are expected to provide their own labour power in the construction of their houses. To add insult to injury they have no real choice in structures and can exercise little 'self determination' in selecting the nature and standard of their accommodation, in accordance with priorities established by themselves' (Wilkinson, 1980, 32). Thus when the state structures everyday life it is in effect co-opting labour into subsidising its own poverty through self-help housing. However, Wilkinson (1980) argues, the principle of 'sweat equity' and collective participation in the actual construction process promotes a hub around which a sense of fraternity is promoted which may be conducive to the development of 'self help' in the truly radical sense (i.e. anarchic drives towards anti-statism 'local control').

Dewar's (1980) response from the liberal paradigm was to recognise the many areas where liberal and radical analyses could agree in their interpretation. For example, they could both agree that 'the housing problem was a symbol of a deeper issue of politico-economic relationships' and not a simple, independent problem or 'thing in itself' (Dewar, 1980, 35). It was also agreed that Turner's (1976) thesis was an oversimpli-
fication and partial theory of housing. However, they disagree over the degree of imposition and on the issue of acceptability connected with the principle of self-help housing.

Dewar (1980) argues that marxist analysis ignores qualitative issues as it views housing as a manifestation of the basic class struggle in which the fundamental issue centers around the socialisation of the capitalist means of production. In doing so, the marxist analysis 'doesn't address itself to the central theoretical and practical issue of appropriate levels of decision-making' (Dewar, 1980, 37). Dewar (1980) here takes a Turner (1976) stance, arguing that what housing does for people is more important than what it is. For example, self-help housing increases the politicisation of the proletariat, making them more aware of their situation and the range of choices available for them to act upon and thereby reduce their state of absolute dependence. Self-help is not directly imposed as such on people. Rather it provides an autonomous approach which is, as Burgess (1978) argues, 'proscriptive' and not 'prescriptive'. Consequently those people who wish to, can be helped to excercise control over decisions in housing. The policy of self-help housing then does not imply that every person should build their own home. However, it does mean that the poorest may be provided with a building they can afford. Those who don't want to build their own units may have their dwellings supplied by centralised institutions. The notion of workers having to be productive in their place of employment and then still being expected to provide their own housing during evenings and weekends is judged by Dewar (1980) to be a misrepresentation of the autonomous position. He argues that it is an impossibility for the state to provide all housing. This situation therefore necessitates self-help to overcome the vast shortfalls in units. The solution for Dewar (1980) then, is that through short term reforms such as self-help housing, people may be enabled to resolve long term issues themselves. This requires that policies of social engineering be 'intelligently and sensitively applied' in the development process since the process of change itself influences the nature of the problem. He therefore accepts that the 'ideological dispensation which emerges over time must be a reflection of the will of the people, not the will of a minority of articulate members' (Dewar, 1980, 38). Rights to a better life he argues, would not be achieved through ideological change. He consequently rejects outright that socialisation of the means of production would solve the housing
problem as he does the marxist attitude of supporting only those effective actions which would hasten world revolution.

Dewar (1980) in other words, maintains that through improvement in the quality of life of the poorest people, change and improvements will be facilitated to bridge the gap between longer and shorter-term issues of development. For this purpose the state apparatus as an autonomous body and agent of redistribution can ease the transition to higher levels of development through affording greater access, opportunities and local autonomy to the lower socio-economic groups.

The debate after Wilkinson's (1980) response to Dewar (1980) loses momentum. Wilkinson's (1980) reply focussed in a theoretical manner, on Dewar's (1980) apparent misconception of the marxist interpretation of the role of the state. The marxian view of the state is not that it acts entirely in its own self interest, as Dewar (1980) suggests. Rather the marxian view, following Poulantzas (1975, cited in Wilkinson, 1980) is that the state excercises relative autonomy through the separation of the spheres of politics and economics. Wilkinson (1980, 40) notes that the 'state acts both to maintain the unity of the dominant classes or fractions struggling for hegemony within the 'power bloc' and to ensure the continued subordination of the dominated classes'.

Wilkinson (1980) further points out on the issue of fundamental social change, that Dewar (1980) ignores the fact that social transformations can take place both inside and outside of the formal framework of social institutions. This is not to say, he argues, that social change desirable to the mass of people, can only be achieved through social engineering. Again the problem is focussed on the relative autonomy and range of choices available to people in an institutionally structured system.

It is unfortunate that the debate has apparently ended without further airing of ideas from both the radical and liberal quarters. The reasons for the apparent deadlock could be attributed to the fact that both parties are arguing from very different sets of fundamental assumptions about the nature of society, role of the state, etc., which could result in many misconceptions and arguments developing at cross purposes. The reasons for this are again demonstrated in the interpretation and conclusion sections of this thesis. There is, then a definite need to clarify the basis of each standpoint for an ongoing debate. The issue may however,
be irresolvable given the intrinsic polarity of the two perspectives.

The following section, dealing with the anarchist approach, will elaborate on the point Dewar (1980) made regarding those areas of consensus for both the liberal and radical paradigms.

5.3 THE ANARCHIST APPROACH

It should perhaps at this stage be pointed out that the notion of self-help housing around which an important part of the housing debate revolves, is anarchist in origin. However, the conditions under which anarchist housing researchers such as John Turner (1972) and Colin Ward (1976) envisage the resolution of housing problems through self-help are very different to those of either the radical or liberal schools of thought.

In this section only the most pertinent assumptions to the relevant anarchist approaches to social formation and the housing problem will be mentioned. This is so as to place the idea of self-help, borrowed and adapted by the liberals and radicals, in its proper context.

5.3.1 Basic anarchist assumptions

Guérin (1970) notes that anarchy is one stream of socialist thought which has as its aim, to abolish the exploitation of people by people. This is achieved through the removal of hierarchically organised power relations such as those represented by the state. Horizontal power relations between equals co-operating collectively are encouraged within a context of political and economic decentralisation. Alienation of individuals is consequently reduced in the production process based on small scale enterprise which emphasises self sufficiency for the community involved. Such an environment enhances the real independence or self liberation of individuals by providing the means for human and scientific potential through individual and collective transactions within an human scale interdependent system. Self-help housing constitutes one way to individual liberation through self expression, self discovery and potential self realisation by means of equals co-operating collectively. However, to attain this ideal requires the initial raising consciousness of individuals in their relations to the mode of production. This is, in order that their actions may transform society to a 'primal organic unity
that is spontaneously self-regulating' (Roszak, in Smith, 1980, 149).

5.3.2 Opposition to the state

Social anarchists such as Peter Kropotkin

'maintain a firm belief in the capacity of people to organise their lives without structures of domination and subordination -- to co-ordinate everything from a family to an economy on a co-operative participatory basis. Most socialists focus on the need to replace repressive economic structures with common ownership of the means of production and distribution according to needs. For anarchists, freedom is the relationship of people to a total life process, and the elimination of authoritarian relationships wherever they arise -- in the workplace, in the home, in the social situations!' (Breitbart, 1981, 136).

Anarchists then condemn any form of authority, notably that of the state, which inhibits individual freedom and access to realisation of their full development potential. Individuals they maintain, cannot be free in a highly organised and institutionalised mass consumption society. The state, Guérin (1970) comments, obstructs all free activity through censorship, supervision and repressive policing.

Social anarchists oppose marxist socialism, even though both seek to abolish capitalism and the capitalist state. In addition they reject parliamentary liberalism since it aspires to create a society based on inequality and exploitation (Carter, 1971). Anarchism recognises state policies and activities as a response to secure its own preservation within a certain type of social organisation.

Anarchism consequently opposes any state centralisation, capitalist or communist, seeing it as inhibiting self liberation through substituting a false, constraining, and hierarchically imposed order upon the natural order of a self regulating community.

5.3.3 Housing in decentralised societies

A more natural order of the community is one where the social environment is decentralised into rounded, ecologically balanced communes (Bookchin, in Clark, 1977). People are here enabled to liberate themselves through
taking over powers of authority and controlling their own organisations. Such a 'human scaled' environment according to Goodman (Carter, 1971) is conducive to scientific education and invention and provides a milieu within which individuals may realise their individual and collective potential. The anarchist concept of self-help housing is one aspect of the life process whereby this may be achieved.

Turner (1972) points out the uneconomic nature of centralised and large scale supply of housing as opposed to that of a network of discrete services. Centrally co-ordinated and provided housing cannot respond to the heterogeneity of low income housing demands and succeeds only in providing a 'costly, rigid, stultifying and depressing' living environment (Turner, quoted in Burgess, 1978, 1115). Turner (1972) maintains that one has to distinguish between what housing is and what it does for people in their lives. The present institutionalised standards can only measure the former yielding a measurement of housing as exchange value, that is, housing is viewed as a commodity. This partial view of housing does not consider use values people attach to their living environments. However, when people can themselves provide for their own housing needs, as in self-help housing, users derive more meaning in the living environment. Local autonomy promotes popular participation and it is in this context that self-help housing becomes a positive activity for individuals in that it provides the milieu for human development through collective participation.

Hierarchical authority in traditional anarchist circumstances is seen as only temporary and problem specific. For Turner (Burgess, 1978), however, government plays a role in ensuring and facilitating local access to cheap supplies of raw materials, finances and land. Further deviations from original anarchist ideals on rejecting authority are expressed by Goodman (Carter, 1971) and Roszak (Smith, 1980). Goodman (Carter, 1971) points out how a locally autonomous environment is conducive to greater flexibility planning. Here counterculture planners respond less to aesthetics and efficiency based criteria for the living environment and concern themselves 'primarily with the relationship of design to the fostering of personal intimacy, many-sided social relationships, non hierarchical modes of organisation, communistic living arrangements and material independence from the market economy' (Roszak, in Smith, 1980, 92). Both Goodman (Carter, 1971) and Roszak (Smith, 1980) may be referring to
temporary and problem specific short term planning within long term social ideals.

Krimmerman and Perry (1966, 114) write that the 'ultimate end of all revolutionary social change is to establish the sanctity of human life, the dignity of man, the right of every human being to liberty and well-being'. However, social revolution, according to Emma Goodman (Krimmerman and Perry, 1966) is not achieved merely by restructuring the physical environment. One needs a change of substance not form to achieve social revolution. That is, a change of ideas and values towards a collectivist (not communist) attitude. As Roszak (Smith, 1980) points out, a changed consciousness must precede social change.

From the above it is noticeable that many proposals offered by the liberal approach are adopted from the anarchist school of thought. For example, those of decentralisation, community organisation and participation (e.g. self-help), the individual ethic, and short term problem oriented planning such as that proposed by Dewar (1980). It is also evident that radical and anarchist analyses parallel each other in their criticism of the capitalist mode of production. However, the ultimate definition of each as to what constitutes a desireable society are significantly divergent. Both the radical and liberal paradigms couch anarchist terms and ideas within their own analytical frameworks with the aim of promoting their own specific ideal type of society. However, anarchism itself is left outcast as a utopian ideal.

In its original conception, then, the philosophy underlying self-help housing adopts a very different set of assumptions from liberalism and marxism with regard to what type of society it tries to achieve. Both the radical and liberal approaches recognise centralised state controlled and co-ordinated decision-making as a positive aspect in the creation of what each considers a desireable social environment. The outcome is that those in organising and planning circles are only interested in the individual insofar as they can contribute to maintaining a certain type of system. Individuals in and of themselves do not occupy the centre of concern. Anarchists reject this way of organisation outright, favouring non hierarchical, localised decision-making based on popular participation. A prerequisite to the success of such a policy is a reorientation of people away from institutionally conditioned mass consumption. Turner
(1972) uses self-help housing as a means to achieve this end but underestimates the compelling nature of the political, economic and social forces opposing his proposals. Burgess (1978) points out that Turner (1972) fails to understand the housing problem as a structural condition of the capitalist mode of production. Witness to this failure is that Turner (1972), while operating still largely within the bounds of the present capitalist institutional framework calls upon the government to rectify the very problems it is causing and has little control over (Burgess, 1978).

In short, self-help housing in the absence of its ideal anarchist assumptions, does appear in its implementation to be something of a double edged sword for radicals and liberals alike. It may hold potential for a transformation of the social order if it achieves the anarchist ideal of raising the consciousness of those participating in the ideological struggle. However, how can this be achieved in the context of and increasingly state controlled and capitalistically structured environment? This problem creates an area for investigation that is beyond the scope of the present research project.
CHAPTER SIX

STUDY AREA -- BLACK GRAHAMSTOWN

In the previous four chapters several lines of argument have emerged, the threads of which must at this stage be drawn together in order to consolidate before pressing on to the empirical material. Initially, it was argued that the liberal approach to the housing problem in Third World countries has not yet provided an adequate framework within which to solve the housing problem, whereas the radical approach appears to hold out more hope to this effect. Following from this hypothesis the possible reasons why this could be so were investigated. Initially, at the level of the individual, Kelly's (1955) theory of knowledge and marxist notions of consciousness were explored. Then, at the broader physical and ideological contextual level within which individuals operate, liberal and radical theories on the forces moulding such environments were investigated. In these two chapters the radical critique of liberal assumptions serves to provide direction towards alternative options: options firstly aimed at pursuit of a more appropriate theory of explanation, and secondly at relief of the housing problem. Emerging from this discussion was the point that mode of production plays a crucial role in the definition of certain terms such as self-help. Terms such as this take on different connotations within a capitalist or socialist mode of production. Consequently the methods employed to 'coerce individuals to co-operate' within the context of a particular social system forms an essential part of planning strategy, albeit 'profoundly unconscious' on the parts of the 'agents' of the system. Demonstration of the methods actually employed in practice was exemplified by tracing the history of South African housing policy. In order to contextualise our survey responses, this study now requires a more specific focus on one particular environment where national planning strategy has been implemented and where individual responses may be extracted to study their effectiveness. The suggestion here is that values established within and reinforced through the residential environment structure people's priorities.

The literature concerning 'the facts' of the study area is universally liberal in approach. Comment from the radical view will attempt to balance the argument, however, as will be evident shortly.
The study site incorporates the entire area inhabited by blacks in the Grahamstown municipality, situated in the Albany district of the Eastern Cape (see Fig. 4). The main determinant for its selection was its convenient location for the research. However, several other important attributes do recommend it as an appropriate site for investigation. For one, there is a blatantly apparent housing crisis in the area. For another, the site enables the researcher to adopt an historical perspective in analysis since it provides considerable continuity in the matter of black housing, dating back to the early 1800's. Black Grahamstown thus provides an ideal site to study the evolution of residential environment types as they have responded to external forces within the broader national, political, economic and ideological context over time. For example, the Grahamstown townships display clearly distinguishable areas of site and service, self-help, planned housing estate, privately owned contractor built houses as well as squatter settlements. These qualities make the site particularly interesting since not only does it display characteristics found in many South African and Third World cities but also, in particular, it exhibits some characteristics not found in many South African cities, i.e. private (freehold) ownership of property by blacks. Considering that many Third World cities display very similar characteristics to Grahamstown, analysis of this site could be relevant to studies on housing for many developing countries.
Discussion in this chapter will initially review the locational data and subsequently the physical and social features of the study area. The historical outline of the area's development will centre around the implementation of national political policies and the residents responses to these, as recounted by previous researchers in this area. Finally, resident's housing concerns as expressed in these research accounts will be mentioned.

6.1 RESIDENTIAL DATA

Davenport (1980) sees Grahamstown as consisting of three parts, namely the white section, the coloured section and a black or african section. The latter, he notes, consists of three areas: Fingo, Tantye and Joza. Wilsworth (1980, 80) identifies seven 'location wards each with a representative on the Urban Bantu Council, now the City Council'. These are Fingo, Old Location, Old Cemetery, Dead Horse Kloof, Upper and Lower Tantye and Makanas Kop (also known as Joza or Kings Flats). For municipal purposes, however, it appears that a different seven 'wards' are identified. Wilsworth (1980, 84) refers to these as:

- Ward 1: Old Location, Old Cemetery, Dead Horse Kloof and New Town.
- Ward 2: Fingo.
- Ward 3: Upper Tantye.
- Ward 4: Lower Tantye.
- Ward 5: A Block of Makanas Kop.
- Ward 6: B Block of Makanas Kop.
- Ward 7: C and D Blocks of Makanas Kop.

(See Fig. 5).

Wilsworth (1980) notes that there are 2 485 officially recognised dwellings in the township. However, during her field study period 1974-1976, 6 364 dwelling units were identified. These comprised 1 136 municipally rented properties, 1 349 site and service and 3 879 backyard dwellings. Private properties might possibly have been included in the site and service statistics.
Fig. 5: Map of Grahamstown location municipal wards. (Adapted from Wilsworth (1980)).
The following table summarises the municipally defined characteristics of the various residential areas as of 1975 (Wilsworth, 1980).

Table 1: Municipally defined characteristics of black Grahamstown.

<table>
<thead>
<tr>
<th>Area</th>
<th>Property characteristics</th>
<th>Dwelling unit numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Location</td>
<td>site and service</td>
<td>193 official dwelling units</td>
</tr>
<tr>
<td>Old Cemetery</td>
<td>site and service</td>
<td>100 sites</td>
</tr>
<tr>
<td>Dead Horse Kloof 1</td>
<td>site, no service</td>
<td>18 sites</td>
</tr>
<tr>
<td>Fingo</td>
<td>private ownership</td>
<td>350 dwelling units</td>
</tr>
<tr>
<td>New Town</td>
<td>municipally rented</td>
<td>30 dwelling units</td>
</tr>
<tr>
<td>Upper Tantye</td>
<td>site and service</td>
<td>289 erven</td>
</tr>
<tr>
<td>Lower Tantye 2</td>
<td>leasehold</td>
<td>71 dwelling units</td>
</tr>
<tr>
<td>Makanas Kop</td>
<td>site and service</td>
<td>240 erven</td>
</tr>
<tr>
<td>Silver City</td>
<td>municipally rented</td>
<td>408 dwelling units</td>
</tr>
<tr>
<td></td>
<td></td>
<td>371 dwelling units</td>
</tr>
<tr>
<td></td>
<td></td>
<td>260 dwelling units</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 old age cottages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C Block</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 dwelling units</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D Block</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43 corrugated iron temporary shelters 3</td>
</tr>
</tbody>
</table>

6.2 PHYSICAL AND SOCIAL CHARACTERISTICS

Wilsworth (1980) describes the black residential area of Grahamstown as a whole as a place that looks like a mass of low cost and slum housing to the outsider. She notes also that the services and infrastructure

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1 Dead Horse Kloof used to be a squatter settlement from which most people have been removed.

2 Since the implementation of a municipal selling scheme in 1957, 100 houses in Makanas Kop are now privately owned (Wilsworth, 1980).

3 Charton (1979) notes that there are 58 of these shelters.
are similarly poor throughout. Of the 100 streets only 1, an arterial road providing a bus route, is tarred with pavements and stormwater drains. Streetlighting is poor and badly maintained. Few homes have electricity. Water is obtained from communal street taps and there is no waste-water drainage system (see Plate 1).

The open communal rubbish drums of streets have recently been replaced by an open half drum per property. Refuse removal is irregular and inadequate. The bucket toilet system prevails, also with equally poor service (Wilsworth, 1979). Housing stock varies. Fingo and Tantye consist of some brick houses, wattle and daub housing as well as corrugated iron constructions (see Plate 2). Areas such as New Cottages and New Town have almost uniformly small brick cottages (see Plate 4), while Joza has the prefabricated modular type housing characteristic of modern black housing estates (see Plate 3). Silver City, on the other hand, is simply a collection of look-alike one roomed tin huts supplied by the municipality (see Plate 5).

Overcrowding is a major problem and feature in the township's landscape. Wilsworth (1979) estimates the 1978 Grahamstown black population at 35 500. Davenport (1980) estimates a black urban population growth of approximately 1 000 a year. Thus the 1981 black Grahamstown population could be in the region of 40 000 or more. This population forms 70% of Grahamstown's total population and yet it occupies only 21% of the town's land. Population densities for blacks Wilsworth (1979) estimates at 318 persons/ha while for whites it is 31 persons/ha. This situation can be traced historically.

The oldest suburb is Fingo. The grant of freehold titles (318 erven) were allegedly made to the Fingos in 1846 and 1850-53 in the name of Queen Victoria in recognition of services performed in defence of the Cape Colony during the frontier wars (Charton, 1979; Davenport, 1980; Wilsworth, 1980). But Davenport (1980) points this out as being a part truth as a Mfengu township predates the two wars and was apparently aimed at bringing greater control over these people through settling and domesticating them. In 1860 Fingo incorporated Old Municipal Location leasehold plots (Charton, 1979). Next, in 1870, a site and service scheme at Tantye was established (Nyquist, 1971). Charton (1979) notes that in that same year additional leasehold was made available in
Plate 1: Backyard building and the lack of adequate water supplies are features of black Grahamstown residential areas.

Plate 2: Diversity of housing types is characteristic of both Fingo and Tantye.

Plate 3: Residential units in a main street in Joza typify the monotonous housing characteristic of modern planned housing estates.
Plate 4: Garbage collection takes place infrequently. Here in New Town the typical municipally built cottages feature in the background while the site and service housing types are in the foreground.

Plate 5: Housing in Silvertown is characterised by these temporary corrugated iron shelters.

Plate 6: More incongruous extentions to prefab. dwellings do exist in Joza, as indicative of increasing privatisation.
Tantye although it is not clear whether the reference here is to these site and service erven. Wilsworth (1979) notes that 887 total site and service erven were created at this time. In 1930 the New Town cottages were built adjacent to Fingo Village. In similar style, New Cottages were built adjacent to the Tantye area in 1938 (Nyquist, 1971). In 1957-62, 1000 houses were built in Joza, which forms the most recent large scale housing development. Major emphasis on state assisted housing occurred during the late 1950's and early 1960's. During the later 1960's a site and service scheme and a modern housing estate were established in Grahamstown. This would correspond to the (t_3) phase in McCarthy and Friedman's (1982) scheme. Since then no more houses have been built save in 1975 when 100 two roomed houses were built at Joza and 120 corrugated iron temporary dwellings were erected in Silver City (Charton, 1979; Davenport, 1980; Wilsworth, 1980).

Davenport (1980) suggests that since 1967 the city council has consistently turned down requests for black housing construction in response to political constraints originating at the level of the national state. As a result by 1980 there was an estimated shortfall of 4000 houses. He also traces the worsening of already poor housing conditions in black Grahamstown to the implementation of the nationalist government's Apartheid policies through the implementation of the Group Areas Act of 1950. The radical position, however, would attribute poor housing conditions largely to other factors. For instance, the low wage structure is of utmost importance in exacerbating the problem. In terms of its economo-geographic situation, Grahamstown has become a migratory labour pool for the larger urban industrial areas such as Port Elizabeth and further afield and this has depressed black wages well below the poor national average. Furthermore, the radical view would point out that, notwithstanding the paramount influence government has over local policy, it is the municipality, not the national government, which actually implements policy at the local level. That is, the municipality plays a strategic role in locating negative and positive externalities of urban development and consequently also the organisation of environmental rewards within the local authority area. Following Olson (Harvey, 1973), Harvey argues in this regard that the existing institutional framework for reaching collective decisions and arbitrating between the competing needs and desires of different pressure groups within the population are attuned more to coping with coherent small group pressures than with a
Large and heterogeneous collectivity of interests. In other words, the structural organisation of the political system consistently causes a redistribution of real income in favour of smaller more politically articulate groups at the expense of the larger unco-ordinated ones. The implementation of these 'hidden mechanisms' will now be investigated.

6.3 POLITICAL EFFECTS AND RESPONSES

From 1955 onward, black residents have experienced residential insecurity as a result of forced removals of blacks from 'buffer zones' so as to have Grahamstown conform to the Apartheid city structure. Insecurity of tenure for Fingo property owners has been a constant threat since 1964 when government desired Fingo Village to be proclaimed first a white or indian area and then in 1965 a coloured area. Fingo was gazetted as a coloured area in 1970 but finally deproclaimed as such in 1980. In addition, since the mid 1960's there has been the threat of removals of Grahamstown blacks to isolated rural areas such as Committees Drift and Glenmore (in the Ciskei), despite the fact that 90% of blacks in Grahamstown have Section 10 rights (Horrell, 1972). The 'carrot of border industries' and government policy of apartheid, Davenport (1980) argues, has made the local city council powerless to improve residential conditions for the blacks. Given this situation of uncertainty, nothing has consequently been done about education, housing or developing job opportunities for Grahamstown blacks. By the same token, legislation and their political situation has inhibited black's capacity to help themselves by denying them adequate access to opportunities and resources. Davenport (1980) here displays the classical liberal viewpoint. However, he fails to diagnose the role played by the worker-employer relation or by the liberal dominated municipality in the physical and ideological structuring of the Grahamstown environment to serve white upper class interests.

Wilsworth (1980) too finds refuge in central government scapegoatism in her analysis of the low wage structure for blacks within Grahamstown. She estimates the average family income in 1978 as R134 per month and notes that 62,81% of the total black population was actively involved in the process of making a living. 51,33% derived their income from the white sector, while 11,48% of the population made their living through
their own efforts. She notes that 65.54% of the adult population was employed in full time work in the white sector: males being employed primarily in manufacturing and construction and females in domestic services. She maintains that objections to removals and isolation of these people in rural areas may consequently appear justified. What she neglects to point out is the level of protection the liberal argument lends to the predominantly white sector of employers. That is, the notion that since government is to blame for not creating equal economic opportunities for blacks then the responsibility is not that of the employers. Wage rates consequently remain unrevise and in the face of escalating costs, lower standards in living become manifest in the residential milieu.

Referring to the implementation of the Group Areas Act, Charton (1979, 4) exclaims that 'This extraordinary feat of town planning sought to destroy at the stroke of a pen the historical and cultural centre of black Grahamstown, the scene for over a hundred years of intense community life, of education and of the adaptation and development of the African residents to an urban way of life'. However, she notes that Fingo, even after twenty years of uncertainty with regard to its future, 'remains the heart of the black community and the home of most of its community leaders...' (Charton, 1979, 4). This is attributed primarily in the light of recent policy adjustments, to the presence of property rights in this section of the township. As with Stadler's (1979; 1980) findings in Alexandra, the property owners appear to be prospective unifying agents of black (note, not class) solidarity. Since in the liberal view government is supposed to fear black national unity it attempts to dispossess them. However, an important difference to note in their specific historic situation is that these property owners actually form part of the government created petite bourgeoisie class! Given present government priorities they could then play an essential role in the ideological control and fragmentation of the working classes within their Grahamstown environment.

A study conducted by Nyquist (1971) provides greater detail on these black elites in Grahamstown. He points out that people's lives and thoughts are affected by the milieu in which they live. He maintains that Apartheid has moulded people's lives and thoughts in black Grahamstown in a counter productive way, producing a black elite that are competitive amongst themselves, struggling for the most desireable positions available to them in the african community. He sees the black elite as becoming
the reference group for the shaping of rank and file behaviour and evaluation within the organisations saying that the 'upper status is a kind of intermediate reference group, the leading edge of a general drive for a more European style of life among urban Africans' (Nyquist, 1971, 834). Traditional norms and values are being eroded in the process. High status is evaluated within the community in terms of high education, high income and occupation (e.g. the professions) and ownership of property. However, status derived from these criteria 'does not signify power, nor does it mean economic security. What status in the urban African context of South African does mean is a high ranking in a low-ranked community' (Nyquist, 1971, 11). People in this position occupy a marginal situation since the political structure of Apartheid society does not give them power and allow them to direct the affairs of their own communities. In this context Charton (1979) reacts that there should be little wonder at the failure of those community development projects that have been started in Grahamstown in the past.

The way the system is structured and is becoming structured, then, continues to serve dominant class interests. All attempts to institute projects that encourage community participation such as that cited by Charton (1979) have failed dismally. Again one may harp back to the argument that within a capitalist society where the distribution of real income automatically favours an already advantaged minority group, it is unrealistic to expect the underprivileged groups to eagerly participate. Hence the constant failure of such projects.

Wilsworth (1980) understands that the community would seem to consider themselves competent to build, maintain and improve their own shelter. The most valuable contribution from others then, would be in the form of better wages, security of tenure and capital expenditure on infrastructure and services (see Plates 6 and 7). The liberal view, then, may not adequately grasp the increased dependency of labour on capital and hence the increased exploitation over time inherent in such measures. However, Charton (1979, 2) does indicate from a liberal perspective that upgrading of fringe benefits of housing, amenities and aesthetics such as housing, lighting, streets and recreation is 'usually only ameliorative rather than developmental in a basic economic sense'. Le Roux and St Ledger (1971) also report from a study done in Fingo Village that the primary concerns of the black community themselves are for their own
Plate 7: The self motivated type of self-help housing is usually of the wattle and daub variety as demonstrated here.

Plate 8: Proponents of the self-help schemes usually attempt to encourage fairly substantial houses of the type in this picture.

Plate 9: The 'freedom now -- degree tomorrow' slogan on the wall in the background is an on-site relic from the 1980 school boycotts.
homes. Their protests, then, would not appear to be against participation in helping to improve their circumstances but rather against differential incorporation into the politico-economic system and its rewards structure. It would seem that the issue is over this discrimination and not the actual condition of the home environment against which their frustrations become pitted. Concern with the residential environment may then be viewed as an attempt by the authorities to dislocate these issues emanating from the production sphere, to the sphere of reproduction. Protests from labour within the latter sphere could then be interpreted as a reaction to the excessive interest and attempted moulding by those in authority there. Thus what at first appears to be the expression of central government power over local housing policies could in fact be a reflection of local bourgeois concern over the upgrading of the efficiency base of the working classes (in line with national ideology) and also the creation of new avenues for marketing commodities within the residential environment -- measures which could affect the economy of local businesses.

The local level thus presents a microcosm of the events occurring on the wider national scale and the processes involved become self perpetuating with the aid and impetus of externally regulated appropriate physical and ideological structuring. That is to say, within the structural bounds of a capitalist system, local group bargaining can be relied upon at this stage to produce those relations of production that perpetuate the capitalist accumulation process. Grahamstown here provides an example of a peripheral city which has been co-opted into participating and co-operating in national planning strategies through structural conditioning into the capitalist ethic.

Previous research on black Grahamstown was primarily conducted through formal, closed ended questionnaires, informal interviews, participation observation techniques or literary and manuscript research combined with researcher observations. The following chapter outlines an alternative method of directly questioning respondents. Its design is formulated upon the basis of Kelly's (1955) Personal Construct Theory outlined in Chapter 3,
CHAPTER SEVEN

METHODOLOGY

A major obstacle for the radical perspective is the criticism that to use a survey instrument of any kind would merely obtain from the respondents a data set which was no more than a reflection of the internalisation of the dominant ideology. In other words, responses, being based on false consciousness would be too predictable to warrant the time and effort spent in survey. However, research also has the purpose of testing the validity of theory -- including marxist theory on consciousness -- and it is in this capacity that Kelly's (1955) repertory grid methodology will be used. Firstly, it provides a superior method of survey research by lending itself to more objective, quantitative and scientifically rigorous means of penetrating consciousness. It achieves this by virtue of it not imposing researcher bias in the questioning procedure. Secondly, the repertory grid is as a result a method which enables the researcher to question the explanatory powers of rival theories of the sociological contexts within which individuals construe.

This project started out in the naive hope that with this sophisticated method of attitude survey and analysis, one might uncover the 'true' meaning systems of people. But with hindsight and in the light of marxist theory, it seems probable that one is not going to achieve any more than a reflection of the motivating forces determining conscious behaviour -- forces that have been regulated and moulded by the context within which people have to operate. On the other hand, this problem creates research opportunities as well as limitations. Thus one may test the validity of the arguments concerning the political incorporation of individuals into dominant meaning systems based on their own conceptions of their position in the socio-economic system or relation to the mode of production. In addition, the strategy gives rise to the opportunity for considering ways in which the repertory grid method might be modified in order to more closely parallel the praxis model of knowledge.

7.1 THE REPERTORY GRID METHODOLOGY

The aim of the repertory grid technique is to provide the researcher with a map of a person's construing system, i.e. to ascertain personal constructs. It is devised to measure how people categorise phenomena, i.e. the researcher
finds out what things are put in similar or different classes in people's minds and how the classes of phenomena are distinguished from each other (Whyte, 1977). The repertory grid method is an inductive method which 'seeks to establish general principles which can subsume the content found within the unique context of each individual's cognitive system' (Bannister and Mair, 1968, 68). It reveals the dimensional structure of an individual's own view of the world but through its scientific approach incorporates the construct systems at a higher level of abstraction (Bannister and Mair, 1968, 41). Stringer (1976) maintains that when used to encourage participation in the planning process, the grid forms an interaction between the expert and the non-expert which is initiated by the latter. He asserts that each person makes an active contribution in deciding how their environment should be developed. The repertory grid then, has the potential to provide a representative theoretical framework of cognitive structuring based on the aggregation of individual cognitive systems which could reflect culture group meaning systems and hence their consciousness of perceived and experienced reality. Kelly (1955) views the primary purpose of psychological measurement in a clinical setting as that of surveying and ascertaining the possible direction along which a subject is free to move so as to aid them in their progress (Fransella and Bannister, 1977). This method could then suit this research project were that its purpose in the housing context.

The repertory grid method of enquiry is not of a simple question and answer type but rather it 'attempts to construe the construction process of another in the hope that we will be able to 'see' the situation through his eyes' (Fransella and Bannister, 1971, 121) and so understand their circumstances and interests. It is a method designed to overcome the problem of a researcher imposing upon a subject his/her own preconceived concepts of what he/she considers important criteria for evaluating the environment. Harrison and Sarre (1976, 376) note '...the intention of the method is to reveal how the respondent actually thinks and not to induce him to conform to the interviewer's standards'. For the repertory grid the interviewed select criteria of evaluation they themselves find relevant. For example, they are asked what they find similar and dissimilar between two residential areas which they themselves have selected as being distinct from each other. (Kelly (Fransella and Bannister, 1977) maintains that people make sense of their world by noting simultaneously, likenesses and differences.) The constructs or elements
of differentiation consequently elicited are, according to Harrison and Sarre (1976), more closely related to behaviour than are supplied constructs. This is because they reflect, at the level of the individual, the theoretical framework produced by perceived and experienced reality.

Personally significant constructs are thus elicited and can be generalised to the wider culture group should the level of coincidence be high, Harrison and Sarre (1976) support this, saying that data derived from the grid is suited both to inter individual comparison and aggregation over a number of individuals.

The advantage and appeal of using a unified theory and method according to Downes (1976), cannot be overemphasised, as it provides an integrated, coherent and interrelated statement linking theory and methodology. A major advantage to the methodology is its flexibility -- it can be continuously expanded, extended and developed to suit the purpose to which it is to be applied. Hudson (1980) regards it as a powerful, flexible, valid and individually sensitive method of measuring personal constructions. Although the 'maps' produced of people's images of their environment are not very accurate, Fransella and Bannister (1977) point out that the repertory grid technique of inquiring is a great deal more sensitive to the nature of the person than other kinds of psychological instruments that have tended to be used to date.

Harrison and Sarre (1976) maintain too that although it is difficult to establish absolute criteria by which methods may be judged, the repertory grid does enjoy significant advantages over other methods of eliciting information about images. The way in which these are elicited is not excessively demanding on respondents as they do not have to make judgements based on tasks alien to everyday thinking (Downes, 1976). Through eliciting constructs in an open ended manner, the method avoids the loaded question syndrome presently bedevilling many available data generating procedures (Downes, 1976). Downes (1976) also notes that the method does not rely on deception and that the test has considerable face validity. It also overcomes situational problems where people often tend to give answers that theory predicts. In this regard Shotter (1975)

\[1\] Kelly (Fransella and Bannister, 1977) too says people naturally construe by simultaneously picking out what is similar and what is different.
notes that a subject in agreeing to be interviewed often responds with answers he/she thinks the experimenter wants. Bannister and Mair (1968) however, report that respondents to the repertory grid were totally unaware of what answers were expected of them.

Bannister and Mair (1968) claim that the aim of the repertory grid is to allow the subject as much freedom as possible to express their judgements while the task of formalising and quantifying is left to the post test statistical processing. Downes (1976) notes that an advantage of the grid is that it combines personal detail into the production of quantifiable data. The best of both worlds can be exploited in that the approach can be humanistic, relevant and 'soft' while maintaining an objective, scientific and 'hard nosed' stance (Downes, 1976, 74). Another advantage to the repertory grid methodology is that one does not, according to Downes (1976, 86), 'have to indulge in statistical convolutions to analyse the data'. Hudson (1980) also points out that the data from the repertory grid technique are relatively easily analysed in statistical terms. Quantitative methods are valid in that as Fransella and Bannister (1977, 59) note '...inferences are based on the assumptions that statistical relationships within the grid reflect psychological relations within the person's construing system. These psychological relations represent something relatively stable and permanent in a person's construing system'. All types of repertory grid then, represent a sorting task that enables people to communicate their construing system of the world.

Bannister and Mair (1968) maintain that repertory grids can measure both the structure and content of construct systems. Content they see as the verbal labels used to define construct dimensions that interest a person. Structure concerns the interrelated nature of the constructs themselves, or the degree and kinds of links existing between labelled constructs. They maintain a distinction between content and the cognitive structure underlying elicited constructs and see the distinction between these as

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1It should be noted here that the ease of data analysis of large numbers of grids depends largely on controlling the variability in the data collecting technique such as the grid sizes, element selection, etc. In point of fact, a major analytical problem in this project was that there was no known computer technique for analysing sets of grids where both the number of elements and constructs varied. A computer program had to be specially prepared for this purpose.
referring to the level of abstraction at which the grid data are to be discussed. That is to say, investigations of the hierarchical status of structural relationships would be at a higher level of abstraction than, for example, those concerned with the frequency of mention of constructs.

The repertory grid has undergone various adaptations and has developed numerous forms to suit particular circumstances in research. Those pertinent to this research project will be reviewed next, followed by a section outlining the types of grids adapted and used for purposes of this research project.

7.2 VARIOUS FORMS OF REPERTORY GRID

Fransella and Bannister (1977) point out that there are many and various forms of repertory grid. In their Manual, however, they outline the most effective and interesting ones developed to date.

The basic role construct repertory test grid form is comprised, firstly, of a number of elements corresponding to known people the person has to identify (see Fig. 6). That is, element types elicited from respondents correspond to roles particular people have played in relation to that person. Personal characteristics (i.e. constructs) corresponding to a personality type are elicited. These constructs are then compared for similarities and differences between predetermined sets of triads representing role characteristics. All additional roles are compared and ticked for having these qualities. In the clinical context this serves to explore how people perceive themselves in relation to others, with a view to helping them overcome psychological problems. The 'elements' refer to people while 'constructs' refer to a quality or characteristic of theirs.

The ratings grid evaluates the relative positive and negative qualities each element has with regard to a construct. This is measured on a 7 point attitude type scale rated from 1 (extremely positive) to 7 (extremely negative).
Fig. 6: An example of a completed role construct repertory test (from Kelly 1955, 270).
Hinkle's Implications grid uncovers superordinacy of constructs through rank ordering these constructs with regard to each other. This shows the degree of interrelatedness of constructs. Once elicited, 'laddering' can be done. That is done by asking respondents why they prefer a certain quality, repeatedly until their repertoire is exhausted. The last mentioned response is regarded as a superordinate construct, that is, one by which many qualities are evaluated. This is akin to Osgood's (1957) three features of Potency, Evaluation and Activity (see Appendix A). However, Hinkle and others such as Kelsall and Strongman (Fransella and Bannister, 1977) maintain that superordinacy may also be obtained through the resistance-to-change grid. Here preferences are compared with each other and scored relative to each other for a preference hierarchy. The resistance-to-change grid discovers what is important in an evaluative sense. It is a method which ranks preferences in an unconscious way.

The dyad grid is used to compare two elements at a time, firstly with regard to those things thought to be similar, and secondly with regard to those things that are seen as different. Separate lists of constructs of similarity and differentiation are thus obtained. The dyad grid can be easily and rapidly implemented in the field and is adequate as a tool for initially investigating the content of personal construct systems. However, it is too rudimentary to allow understanding of structure within such systems.

7.3 THE REPERTORY GRIDS DEVELOPED FOR THE RESEARCH PROJECT

The methods adopted for purposes of this research project made use of several of the grids mentioned by Fransella and Bannister (1977). Specifically, the research survey took place in two stages: Firstly, a pilot survey which used the dyad grid to explore content in personal constructs and secondly, the main survey which used an adapted and combined version of the ratings and basic grid as well as a separate resistance-to-change grid.

In the pilot survey, the dyad grid basically required respondents to identify no more than 5 different areas and then compare them systematically with each other with regard to what they thought was similar and dissimilar about them (see Appendix C). It formed a simple grid method of eliciting the content of the constructions respondents had of their residential
environments. It also tested the response and quality of data obtained from such a grid. Finally, of fundamental value, the pilot study identified the number of distinct residential areas that could be used as elements in the main survey. That is to say, it clarified which areas within black Grahamstown were readily identifiable by the vast majority of respondents.

The basic grid of the main survey had to be modified for the specific purposes of this research. The elements were composed of eight residential environments most commonly identified by respondents during the pilot study (see Fig. 7). The eight constructs on the other hand, were the respondent's own selection of things thought to be similar and different between the eight residential environments. The ratings grid measured on a scale of 1 (extremely similar) to 7 (extremely dissimilar), the relative similarities for all the areas with regard to the constructs mentioned. The ratings grid was incorporated into the basic grid for ease of reference and completion during interviews (see Appendix D). A separate resistance-to-change grid based on that of Hinkle was used and completed from comparisons of construct preferences elicited in the basic grid. Resistance-to-change scores and rank orders were worked out after interviews.

Hinkle's Implications Grid was not used as it would possibly be too lengthy, tedious and demanding on both interviewer and interviewed. In addition it seemed unnecessary as superordinacy is implicit in the resistance-to-change grid (Fransella and Bannister, 1977).

There were undeniable advantages to the chosen combination of grids over a conventional questionnaire format. For example, the questions asked and answers given were in no way either loaded or emotive. The questionnaire format simply represented a method of 'controlled open endedness'. The only constraints on the respondents replies were the areas to be compared. Even then, these areas were originally obtained from the population during the pilot study. There were few constraints imposed by language problems since the questionnaires were administered in Xhosa to the respondents. Respondents were free to express their concepts within specific objective guidelines. No unnecessary and unrelated questions were asked. The grids established respondents meaning systems spontaneously through their eliciting of content and also enabled the researcher to test the validity of Bannister and Mair's (1968) claim that frequency of construct mention
Fig. 7: The eight township suburbs identified by black residents.
equates with respondents primary interests and concerns, It is also possible to establish residential preferences and the implicit relative area preferences as well as possible reasons for these preferences. In addition, further information on the structural interrelations is obtainable through priority listing of preferences. The relative importance of these priorities could then be assessed, and with the use of factor analytic techniques respondents' levels of construing could possibly be determined. The grids chosen were convenient and easy for interviewers to administer and for respondents to complete (see Appendix D). They also provided ample material for interpretation of people's meaning systems in their residential environment contexts.

In the following chapters the pilot study will initially be discussed together with the results obtained. This will be followed by a discussion of the main survey and its associated results.
CHAPTER EIGHT

PILOT STUDY

The pilot study was conducted as a preliminary to the main survey. It experimented with the simplest form of grid outlined in Fransella and Bannister's (1977) Manual. It formed part of a wider Eastern Cape survey investigating the way in which blacks cognitive structure their residential environments (see McCarthy, 1982). The primary aim of the pilot study was to elicit from the respondents a list of residential areas together with their characteristics.

The following section initially outlines the questionnaire format. This is followed by the presentation of results, discussion and concluding remarks.

8.1 PILOT STUDY QUESTIONNAIRE FORMAT

The pilot study questionnaire conformed to Fransella and Bannister's (1977) description of the dyad grid where two elements instead of three were compared at a time. The questionnaire was divided into three sections. Initially respondents were asked their personal particulars such as age, marital status, occupation, sex and their city and neighbourhood. Section 1 then requested they list a maximum of five different areas they identified within black Grahamstown. Finally respondents were required to compare, two at a time, the areas they identified in Section 1 until all areas had been compared with each other for similarities and then dissimilarities.

8.2 PILOT SURVEY RESULTS

One hundred respondents completed questionnaires administered by black interviewers. The number of questionnaires issued and processed were a function of time and cost constraints. Interviewers were instructed to interview as evenly and widely distributed as possible within what appeared to be the three main spatially identifiable suburbs in black Grahamstown: namely, Fingo, Tantye and Joza. Since it was a comparatively simple grid, analysis was done by hand. Results of the study were as follows.
Although respondents identified ten areas in all they tended to agree on the existence of eight main areas in black Grahamstown (see Fig. 7). Table 2 illustrates the frequency with which these areas were mentioned.

Table 2: Frequency table of areas mentioned.

<table>
<thead>
<tr>
<th>Area</th>
<th>No. of times mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fingo</td>
<td>84</td>
</tr>
<tr>
<td>Tantye</td>
<td>82</td>
</tr>
<tr>
<td>Joza</td>
<td>79</td>
</tr>
<tr>
<td>Silvertown</td>
<td>56</td>
</tr>
<tr>
<td>Old Cemetery</td>
<td>56</td>
</tr>
<tr>
<td>New Town</td>
<td>56</td>
</tr>
<tr>
<td>New Cottages</td>
<td>48</td>
</tr>
<tr>
<td>Mission</td>
<td>28</td>
</tr>
</tbody>
</table>

Joza, Fingo and Tantye were thought to be most different from each other. This is especially so with respect to

1. Buildings and houses.
2. Plot size and characteristics.
3. Refuse disposal.
4. Social services and entertainment.
5. Shopping facilities.

Similarities between areas were seen as streets, lights, water supply, sanitation (toilets), and postal services (except for Silvertown which Fingo and Joza people see as having a different postal system). More constructs were mentioned with regard to Tantye, Fingo and Joza than with regard to other places.

Ten categories of constructs may be identified as characteristically similar and different between areas. These were

1. Residential area infrastructure (lights, streets and water) (mentioned most often -- 3 753 times in all) occupied their main concern. They were seen as the same in most areas, except in Old Cemetery and Silvertown. Old Cemetery was seen as distinctly different to Tantye, Joza and Fingo. Silvertown was seen as distinctly different
to Fingo and Joza with regard to streets and lights.

2. **Houses and buildings** (mentioned 1 628 times in all) form the next priority. For most respondents, no areas were seen as the same in this respect -- all were seen as distinctly different from each other. The main differences seemed to be between substantially built houses such as those built by the municipality and those less conventional self built, or site and service type houses.

3. **Sanitation and garbage disposal** (mentioned 1 547 times in all). Sanitation was seen as the same throughout the township. Garbage disposal however, was seen as different between areas. The exception was Old Cemetery and Silvertown which were seen as the same, but not significantly so. For most respondents, Joza was seen as different to the rest in terms of sanitation and garbage disposal.

4. **Property size and characteristics** (fences, gardens, tenants, rent and titles -- mentioned 1 127 times in all). This characteristic was seen as not being alike between areas. Joza, Fingo and Tantye were depicted as being the most distinctly different from each other in this regard.

5. **Social services and entertainment** (beerhalls, dancehalls, churches, stadiums, playgrounds, library, creche, clinics and transport -- mentioned 384 times). These characteristics were not seen as being the same between the various areas. The main differences again appeared to be among Tantye, Fingo and Joza regarding these facilities; each distinctly different from the other.

6. **Commercial facilities** (e.g. shops and burial services -- mentioned 373 times). In most cases these were seen as the same. Where they were not, the main differences were between Tantye, Joza and Fingo. Fingo and Mission were not seen as having the same facilities as elsewhere.

7. **Postal services** (mentioned 504 times) were seen by most respondents to be the same throughout the township. Silvertown, however, was seen as different mainly from Joza, Tantye and Fingo. (This was expressed primarily by Fingo, Silvertown and Joza people.)
8. Education facilities (mentioned 269 times) were seen as different between the areas, especially between Tantye and Joza.

9. Aesthetics (mentioned 89 times, including trees, untidiness, and general appearance of the area) were not thought to be the same. The dichotomy between new and old areas became apparent again.

10. Types of people (mentioned 19 times) were only mentioned when they were not the same between areas. Notably, however, the social characteristics of areas were mentioned on very few occasions — either as a basis for the similarities or differences between areas.

8.3 DISCUSSION OF RESULTS AND CONCLUSIONS OF THE PILOT STUDY

Eight main residential areas were elicited from the pilot study. These were named and identified by the respondents themselves. In methodological terms this is an advance over many previous studies, and the results certainly vary from the administratively identified areas (see page 56). The three focal areas used for comparison were Fingo, Tantye and Joza. The constructs used in differentiating between these areas were mainly the types of buildings and houses and property characteristics of each. In terms of frequency of mention the overall concern was high for basic residential infrastructure such as lights, streets and water supplies. The house and its services were second in terms of frequency of mention. However, data on frequency of construct mention can only identify which areas are similar to each other in terms of which constructs. It does not enable the researcher to comprehend the differences in an evaluative sense. Areas can be recognised different and similar with respect to certain attributes but it is difficult to know which area has positive attributes as evaluated by the residents themselves. For example, with regard to residential infrastructure, Old Cemetery and Silvertown are regarded by respondents as different to all areas. However, it is impossible to gather from the questionnaire whether they are considered better or worse off. Preferences then are not implicit and consequently the evaluative criteria of respondents cannot be gauged. Responses from this type of grid then, tend to be more designative than appraisive in their nature.
Were planning action to be taken on the basis of this study, improvements in the residential infrastructure, housing units and services might appear to be particularly well received by the respondents. However, certain problems would arise in the technicalities of deciding what constitute 'desirable' components of these aspects due for improvement. Planners then, would have to respond on the level of overall concern, and make 'improvements' in infrastructure and housing as gauged by themselves and not by the respondents. In the absence of an evaluative measure, one is not in a position to test from this questionnaire, Bannister and Mair's (1968) assertion that those items mentioned most often by respondents are the most important to them. For example, from this data set the researcher can identify three main distinctly different residential areas distinguished on certain known criteria. However, it is not clear which area is the most popular by virtue of what criteria. It is questionable that because an area is mentioned most often that it is necessarily the most popular. This situation is possibly one cause for previous failures in behaviourally oriented housing research as cited earlier in Chapter 2. That is to say, research techniques used in the search for unbiased data may have lacked a depth of inquiry into respondents actual and perceived requirements. Planners may have been in possession of relatively superficial data sets from which to infer evaluative responses.

Response to this rudimentary dyad grid is a product of a direct comparison of aspects in the environment based simply on similarities and differences. Respondents are not required to respond to more than the parameters of differentiation in the surface appearances of residential environments. Following Pocock and Hudson (1978) this type of grid would then elicit more in the way of designative than appraisive data. That is, response appears directed more to the definition of physical form and its structural image than to the meaning attached to the form.

While a relational aspect does seem to be operational in the pilot instrument in that respondents select constructs for comparison on the basis of their relation to other constructs, exactly what these external relations are is not made explicit by the respondent -- they are simply labelled. For example, people may have selected houses as being similar between two areas but they were not asked in what opposing terms they were evaluated, e.g. tin shacks. However, the basis upon which Kelly's (1955) theory operates is that people identify two similar characteristics of an object in terms of an equivalent dissimilarity and in so doing classify
and categorise their known world. The parameters for comparison in the triad system are consequently less open to erroneous interpretation than those gauged from the dyad grid. The dyad grid then, does not constitute a method that naturally follows from Kelly’s (1955) theory. These are problems the main survey was designed to overcome.
CHAPTER NINE

MAIN SURVEY

The main survey aimed at a greater in-depth study of respondents cognitive structuring of their residential environment. It sought to elicit a residential categorisation from the respondents according to specific characteristics they depicted as part of their residential milieu. In addition it evaluated residential areas relative to each other with respect to preferred attributes and calculated the hierarchy of these preferences. These are then taken as indicative of the level of cognitive awareness individuals experience of their contextual environment.

The present chapter will initially discuss the questionnaire format. This is followed by discussion of the method used in completing the questionnaires. Subsequently there are sections dealing with preparation of the data set for analysis and the processing done by computer. Results are presented towards the end of the chapter although these are only fully discussed in Chapter 10.

9.1 QUESTIONNAIRE FORMAT

The main questionnaire consisted of four parts. The first part requested personal particulars such as sex, marital status, age, occupation, approximate income category and the respondents residential suburb. The age categories were drawn up in five strata of ten yearly intervals while the five wage categories were derived with the aid of employment data from the Eastern Cape Administration Board and Rhodes University in consultation with social workers and black workers. The eight black residential townships to be studied were chosen on the basis of the responses from the pilot survey (i.e. the areas that the respondents identified as distinct from each other).

The second part of the questionnaire required the respondents to select three areas from the eight. Two of these areas should have some characteristic in common which was different from a third area. Eight different constructs were elicited in this way to form a complete grid. Each of these areas were then compared to each other with respect to their degree of similarity using a range of 1 (extremely similar) to 7 (extremely
dissimilar). This process completed the ratings grid comprising the third part of the questionnaire. The fourth part constituted a smaller and separate rank order grid together with the resistance-to-change scores (see Appendix D).

9.2 COMPLETING THE QUESTIONNAIRE

The complexity of questionnaire format meant that the instrument could not be self administered by the respondents. In addition, the high rate of illiteracy and language problems in the population precluded the use of self administered questionnaires. Suitable black interviewers were therefore selected to conduct the interviews and a number of interviews were attended by the researcher.

Interviewers had the choice to complete the personal particulars at the beginning or at the end of the interview, depending on which they preferred for a given respondent. For the construct/contrast grid, respondents were presented with a map of Grahamstown. Features were pointed out on the map, e.g. Rhodes University, city centre and the railway station. The eight differently coloured black residential areas were also pointed out to orient respondents. The respondents were then presented with eight cards on which the names of the different areas were written. If they were illiterate, they were reminded of the different areas during the interview. The respondent selected three cards on the basis of an associated construct, two of which had a similar attribute which was different from the third. The dissimilar attribute constituted the contrast. A circle with a cross, $\bigcirc$, indicated the two similar areas, and 0, indicated the different area.

In conjunction with the construct/contrast grid, the ratings grid was completed simply by ascertaining the extent to which areas ranged from (1) being very similar to (7) being very dissimilar in relation to one another. The entire process was repeated eight times to complete the grid. Where respondents could not articulate any additional constructs before

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1This complied with Kelly's (1955) 'full context form' which was considered by Fransella and Bannister (1977) to be the most desireable and ultimate method of eliciting constructs.
the entire grid was completed, they were left incomplete.

To complete the rank order grid, respondents were asked their preferences for all eight of the constructs or contrasts. Preferences were underlined and then compared systematically with each other to indicate the relative importance or resistance-to-change of each of the preferences. Fransella and Bannister (1977) determine the resistance-to-change scores by counting all the blanks on the rows and the corresponding x's in the columns and noting the total as the score. Equal resistance-to-change is left uncounted. The scores are then rank ordered 1-8, 1 being the most important whereas resistance-to-change would be the reverse, i.e. 8 would indicate the highest resistance to change. Where a place was shared, i.e. two constructs resisted change equally, rank ordering would indicate the shared rank but omit the subsequent relevant number of indicated places before continuing with the rank order numbering. Thus, if place 1 was shared by two preferences, no number 2 preference would be indicated -- the subsequent rank order number would be 3. In this way there was always a distribution of rank orders 1 to 8 given that eight constructs had been elicited.

Interviewers were not required to determine either the resistance-to-change scores or rank order numbers. These were calculated prior to the coding process in preparation for computer analysis. One hundred and twenty questionnaires were completed and computer analysed. As in the pilot study, time and cost proved the major constraints to the number of questionnaires distributed. The number of questionnaires completed for a particular suburb was proportional to the number of times an area was mentioned relative to others in the pilot survey. This procedure avoided the possibility of overrepresentation of those areas not thought significantly distinct from others.

The preparation of questionnaires for computer analysis will be discussed next followed by an account of the methods used in the actual computer analysis.
9.3 PREPARATION OF QUESTIONNAIRES FOR COMPUTER ANALYSIS

In order to computer process the data, it was necessary first to number code all the particulars. Population characteristics were easily number coded in categories, e.g. married became (1), single (2). Similarly, age and income categories were numbered 1 - 5 while suburbs were numbered 1 - 8 corresponding to the numbers on the actual grid. The three suburbs chosen for comparison were given their corresponding numbers in the order of, first, the two similar areas, then the area mentioned as being dissimilar. A master list consisting of 24 constructs and their associated contrasts was drawn up. Constructs (i.e. those most often mentioned as 'constructs' as opposed to 'contrasts') were numbered between 1 and 24 while their contrasts were numbered between 101 and 124. In coding, the item mentioned in the 'construct' column was given the number corresponding to the master list. Next, the ratings of similarity (1 - 7) of the various areas were noted in their original form as they appeared on the questionnaire. The corresponding resistance-to-change scores and rank order scores were finally entered in their original form from the questionnaire. For each questionnaire, then, on average eight cards would be processed. These cards differed with each other only with regard to the construct particulars.

9.4 METHOD OF COMPUTER ANALYSIS

In simple data analysis, use was made of the available Statistical Package for the Social Sciences (SPSS). Initially frequency tables, the 'breakdown' facility and two and three way crosstabulations were performed on the data set. In addition, a factor analysis was performed where the data format was appropriate (i.e. in a parametric form). According to Bennett and Bowers (1976, 17) 'the aim of factor analysis is ideally to explain as much of the original common variance as possible with each successive factor, i.e. to account for as much variance as possible with the fewest number of factors'. In this case the factor analysis used resistance-to-change scores as preferred construct values since these were the only continuous (parametric) variables available suitable for factor analysis purposes.
From a computational point of view, however, factor analysis on the resistance-to-change data was problematic for several reasons. Firstly, the number of variables were halved by using preference scores only (i.e., preferences were either construct or contrast). Another problem arose in that for each questionnaire a large number of variables or cells had no data items at all (i.e., there were 'missing data'). This was a problem, of course, of the more open ended, less structured questionnaire format which allowed subjects free range to select their own variables. Were every respondent presented with the same range of variables to evaluate relative to the areas, the problem of 'missing data' cells would not have arisen. That is, the 'missing data' problem arose from respondents not evaluating in terms of the same set of constructs. Although a single construct may be mentioned by many, they did not always evaluate it within the same set of constructs. The set of constructs then, was individualised causing the 'missing data' problem. However, even if each respondent were to evaluate the same set of constructs, there would still remain the problem of low correlations. This could possibly be explained in that although each respondent may evaluate the same set of preferences, they may rate them differently. This would result in a correlation of 0. Given a preselected set of constructs and a large number of respondents, responses could be interesting for study of socio-economic groups, for instance.

However, because of the amount of 'missing data', the more desirable PA2 factoring could not be done. PA2 is desirable for its automatic inclusion of communalities, i.e. the degree to which a given variable varies with respect to all the other variables. In order to include communalities PA1 was run once the estimated communalities were substituted along the diagonal. At the same time variables mentioned relatively seldom were removed to overcome the problem of excessive 'missing data' cells.

Bennett and Bowers (1976, 27) mention that

'since the general purpose of factor analysis is to discover underlying relationships between clusters of variables, i.e. variables sharing similar characteristics, this process of identification may be improved if the axes are redrawn in such a way as to more easily distinguish between groups or clusters of variables which have something in common and which may then be seen to reveal common characteristics not previously perceived with the axes in the original constraint position'.
That is, separate clusters may be more easily defined after rotation. Bennett and Bowers (1976) in discussing the problems and disadvantages of rotations such as orthogonal, quartimax and varimax appear to favour, as does Johnston (1976), the use of oblique rotation for the analysis of such data. All rotations have their shortcomings but the use of oblique rotation would seem to be a more appropriate general means than the others to uncover the simple geometric structure, provided that the clusters of similar variables are themselves not substantially correlated which would result in a less parsimonious description of the data (Bennett and Bowers, 1976).

Oblique rotation did appear to clarify the related variables within the two factor clusters identified in the data set more than varimax rotation. However, the results were worrying in that as few as fourteen variables were finally being processed. Bennett and Bowers (1976, 92) advise 'to have as many stimuli as conditions will permit, because this decreases the chances of failing to detect significant dimensions, which may be missed with a smaller number'.

Alternate means to establish variable relationships within a wider context was consequently investigated and resulted in the development of an 'association matrix' which included all constructs and contrasts. The term 'construct' as used in the association matrix included its contrast — i.e. construct and contrast were combined to increase the number of variables in each cell since they implied each other. Preferences on the other hand referred to either the contrast or the construct and so created more variables.

9.4.1 The association matrix (see Appendix E)

Essentially the association matrix ascertained the number of times two constructs were mentioned together in all the questionnaires. The idea was that certain key constructs may serve as 'triggering mechanisms' for others which would perhaps give greater insight into the subjects construing systems. This could be especially interesting if the subjects could be divided into, for example, different socio-economic groups.
The association matrix produced a matrix similar to a correlation matrix but which measured the absolute frequency of association rather than levels of correlations between constructs. These matrices were produced for the whole population and then separately, controlling for three income groups, (i.e. those for lower, middle and upper) to demonstrate any possible dependence of factors on income group. The SPSS Factor program was employed in the factor analysis of the association matrices using the PA2 and oblique rotation options. It printed out an easily interpretable matrix of factors in which constructs were associated highly with each other as well as indicating factor loadings of the respondents evaluation criteria. With the association matrix there was less of a problem with 'missing data' since one was dealing with more variables than a limited selection of preferences as in the first factor analysis. This was so because each questionnaire could now contribute to the matrix a set of associated constructs not based solely on preferences, whereas previously each questionnaire could only contribute towards the correlation matrix if it had mentioned certain preferences in combination. That is to say, the range of constructs that could be used in the new matrix was increased considerably which in turn reduced the amount of 'missing data'. The PA2 with oblique rotation options were therefore operationalised.

9.4.2 The resistance-to-change matrix (see Appendix E)

Following on from the association matrix the resistance-to-change matrix was developed to measure which constructs were the most resistant to change. That is, which constructs, when occurring together, were considered by the respondents as having a dominant organisational role in their cognitions. Two constructs could be compared on this matrix to establish some hierarchy in the cognitive organisation of constructs amongst the respondents. Again the purpose was to find out whether socio-economic groups differed in this respect.

In the resistance-to-change matrix the preference scores themselves were not directly used. Rank order scores derived from the preference scores were more suitable here since it was the actual values respondents placed on their preferences that were needed to ascertain the construct's resistance to change. That is, with the resistance-to-change scores
themselves, only a few respondents may have the preference score range from 7 to 1. More often than not the highest resistance-to-change score may be a 5, for instance. Rank order scores skirted the problem by forcing a priority range 1 - 8 even if the highest priority had a relatively low resistance-to-change score. In later analyses, such as crosstabulations and tables of shared priorities, rank order scores also proved more appropriate measures.

The resistance-to-change matrix gave average preference scores for each preference. Each element was the average score of the preference representing the row that it was in. When mentioned together with the preference corresponding to their transposed positions their relative resistance-to-change could be determined.

9.5 MAIN SURVEY RESULTS

In this section, results from the main survey will be presented, primarily in tabular form. For the most part the data will be taken as self-explanatory in this chapter. More detailed discussion will form part of Chapter 10 when the liberal and radical interpretation of these results will be considered.

*Population characteristics* for the one hundred and twenty respondents are presented in tabular form below.

<table>
<thead>
<tr>
<th>Table 3: Sex ratio</th>
<th>Table 4: Marital status ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>47%</td>
<td>53%</td>
</tr>
</tbody>
</table>

The sex ratio was relatively evenly distributed between the various residential areas. In the case of the marital status ratio, however, New Town was characterised by sixty eight percent of the sample being single. Mission was equally represented while the other areas tended to marginally over represent married people.
Table 5: Age categories.

<table>
<thead>
<tr>
<th>Age Category</th>
<th>&lt;20</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>&gt;50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>0.8%</td>
<td>25%</td>
<td>40%</td>
<td>25%</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

New Town residents tended to be younger (i.e. 39 per cent in age category 21-30) than those in other areas where there was a more even distribution along the age profile. This could possibly be a function of the number of single people interviewed in New Town.

Table 6: Income categories in Rands per month.

<table>
<thead>
<tr>
<th>Income Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rands per month</td>
<td>&lt;R50</td>
<td>R51-R150</td>
<td>R151-R250</td>
<td>R251-R350</td>
<td>&gt;R350</td>
</tr>
<tr>
<td>Percentage</td>
<td>18%</td>
<td>38%</td>
<td>20%</td>
<td>17%</td>
<td>7%</td>
</tr>
</tbody>
</table>

In Silvertown no-one interviewed earned over R250. However, most were in the modal income class. New Town, New Cottages and Old Cemetery were predominantly in the modal class. Tantye residents too earned, for the most, incomes from category 2 but also had a higher income enclave in category 4. Fingo residents were more evenly distributed over the modal class while Joza residents were more or less evenly distributed throughout the income categories. Mission tended toward higher income category 4.

Table 7: Distribution of respondents in Grahamstown township.

<table>
<thead>
<tr>
<th>Township</th>
<th>Fingo</th>
<th>Silvertown</th>
<th>Joza</th>
<th>Old Cemetery</th>
<th>Mission</th>
<th>New Cottages</th>
<th>Tantye</th>
<th>New Town</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>17%</td>
<td>11%</td>
<td>17%</td>
<td>11%</td>
<td>7%</td>
<td>10%</td>
<td>16%</td>
<td>11%</td>
</tr>
</tbody>
</table>
9.5.1 Presentation of data

The following tables and commentaries constitute the way in which respondents categorised their residential areas according to the specific constructs they developed.

Table 8: Most often mentioned combination of areas.

<table>
<thead>
<tr>
<th>Similar areas</th>
<th>Different to</th>
<th>No. of times mentioned out of a possible 951</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fingo, Joza</td>
<td>All others</td>
<td>263</td>
</tr>
<tr>
<td>Silvertown, Old Cemetery</td>
<td>Fingo, New Cottages, Tantye, New Town</td>
<td>80</td>
</tr>
<tr>
<td>Fingo, Tantye</td>
<td>Joza, New Cottages, New Town</td>
<td>80</td>
</tr>
<tr>
<td>Fingo, Mission</td>
<td>Joza</td>
<td>36</td>
</tr>
<tr>
<td>Joza, Tantye</td>
<td>Mission</td>
<td>17</td>
</tr>
</tbody>
</table>

Fingo and Joza were similar but different to all other areas in terms of: street lights, tar roads, public transport, medical facilities, social and public amenities, entertainment and liquor, recreation and sport, shopping facilities and schools.

Silvertown and Old Cemetery were similar to each other but different to others mentioned above in terms of: bad housing, congestion, sanitation, water supply, dirt, lack of lights and safety, bad roads, inadequate social and public amenities, shops and unsophisticated, poorly educated people.

Silvertown and Old Cemetery formed a direct contrast with Fingo and Joza.

Fingo and Tantye’s similarities were with regard to freehold, housing, big gardens, bad roads, and dirt. This was different to Joza, New Cottages and New Town.

Fingo and Mission were similar but different to Joza with respect to freehold, nearness to town and racial mixture.

Joza and Tantye were similar but different to Mission with regard to public transport, schools, and bad living conditions.
Table 9 is a breakdown of perceived similarities of all areas relative to each other with respect to constructs. It is composed of the twenty four identified constructs and related contrasts mentioned most often. This table presents an evaluation of residential areas relative to each other.

Table 9: Breakdown of perceived similarities of all areas relative to each other with respect to constructs.

<table>
<thead>
<tr>
<th>Fingo</th>
<th>Silvertown</th>
<th>Joza</th>
<th>Old Cemetery</th>
<th>Mission</th>
<th>New Cottages</th>
<th>Tantye</th>
<th>New Town</th>
<th>Construct no.</th>
<th>Degrees of similarity</th>
</tr>
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<tbody>
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<td>1) extremely</td>
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<td>2) fairly</td>
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<td>3) not so</td>
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<td>4) extremely</td>
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<td>5) not so</td>
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<td>6) fairly</td>
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<td>7) average</td>
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<td>8) fairly</td>
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<td>9) not so</td>
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<td>10) extremely</td>
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<td>11) not so</td>
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<td>12) extremely</td>
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<td>13) not so</td>
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<td>14) extremely</td>
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<td>15) not so</td>
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<td>16) extremely</td>
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<td>17) not so</td>
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<td>18) extremely</td>
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<td>19) not so</td>
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<td>20) extremely</td>
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<td>21) not so</td>
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<td></td>
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<td></td>
<td>22) extremely</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>23) not so</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24) extremely</td>
</tr>
</tbody>
</table>

Constructs:
- 1) Freehold
- 2) Tin shanties
- 3) Bad living conditions
- 4) Congestion
- 5) Big gardens
- 6) Bad sanitation
- 7) Regular refuse collection
- 8) Bad water & electricity supply
- 9) Street lights
- 10) Fair roads
- 11) Public transport
- 12) Medical facilities
- 13) Social and public amenities
- 14) Postal delivery
- 15) Entertainment
- 16) Recreation & sport places
- 17) Shops
- 18) Schools
- 19) Dirty area
- 20) High rents
- 21) Unsafe
- 22) Near town
- 23) Racial mix
- 24) Sophisticated

Contrasts:
- 101) Municipal property
- 102) Proper brick houses
- 103) Better living conditions
- 104) Uncongested
- 105) Small gardens
- 106) Better sanitation
- 107) Irregular refuse collection
- 108) Regular water & electricity supply
- 109) Few street lights
- 110) Bad roads
- 111) Poor public transport
- 112) No/few medical facilities
- 113) Inadequate amenities
- 114) No postal delivery
- 115) None
- 116) None/few
- 117) No shops
- 118) No schools
- 119) Clean area
- 120) Lower rents
- 121) Safe
- 122) Far
- 123) Segregated
- 124) Unsophisticated folk
Those places with a similar score on a given construct/contrast were seen by the majority of respondents to share a position on that construct or contrast. For example, as regards the construct 'freehold', Mission (value 2) appears to be fairly similar to Fingo (value 1), while Silver-town (value 7) and New Cottages (value 7) share equal dissimilarity to Fingo in this respect, being identified with the contrast 'municipal property' ownership.

Table 10 associates similar areas with their characteristic preferences. It presents the similar areas, their preferred characteristics and the rank order of that preference.

Table 10: Crosstabulation of most mentioned areas by preference by rank order.

<table>
<thead>
<tr>
<th>Areas</th>
<th>Preferred for</th>
<th>Rank order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fingo, Joza</td>
<td>Schools (35%)</td>
<td>1</td>
</tr>
<tr>
<td>Fingo, Mission, Tantye</td>
<td>Freehold (13%)</td>
<td>1</td>
</tr>
<tr>
<td>Fingo, Joza</td>
<td>Streetlights (14%)</td>
<td>2</td>
</tr>
<tr>
<td>Fingo, Mission Tantye, Joza</td>
<td>Proper brick houses (13%)</td>
<td>2</td>
</tr>
</tbody>
</table>

(Percentages relate to the number of people who ranked the preference 1 or 2).

Tables 11 and 12 compare the number of times a construct was mentioned with the frequency with which it was mentioned as a preference.
Table 11: Ten most often mentioned construct/contrast combinations.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>No. of times mentioned/120</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social and public amenities</td>
<td>99</td>
</tr>
<tr>
<td>2. Housing</td>
<td>96</td>
</tr>
<tr>
<td>3. Shopping facilities</td>
<td>67</td>
</tr>
<tr>
<td>4. Property rights</td>
<td>64</td>
</tr>
<tr>
<td>5. Condition of roads and streets</td>
<td>58</td>
</tr>
<tr>
<td>6. Schools</td>
<td>57</td>
</tr>
<tr>
<td>7. Street lighting</td>
<td>55</td>
</tr>
<tr>
<td>8. Liquor outlets and entertainment</td>
<td>44</td>
</tr>
<tr>
<td>9. Living conditions</td>
<td>43</td>
</tr>
<tr>
<td>10. Garden size</td>
<td>35</td>
</tr>
</tbody>
</table>

Table 12: Most significantly frequently mentioned preferences.

<table>
<thead>
<tr>
<th>Preference</th>
<th>No. of times mentioned/120</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social and public amenities</td>
<td>98</td>
</tr>
<tr>
<td>2. Proper brick houses</td>
<td>94</td>
</tr>
<tr>
<td>3. Shopping facilities</td>
<td>66</td>
</tr>
<tr>
<td>4. Fair roads</td>
<td>58</td>
</tr>
<tr>
<td>5. Freehold</td>
<td>57</td>
</tr>
<tr>
<td>6. Schools</td>
<td>56</td>
</tr>
<tr>
<td>7. Street lights</td>
<td>53</td>
</tr>
<tr>
<td>8. Better living conditions</td>
<td>43</td>
</tr>
</tbody>
</table>

The above two tables do not differ substantially from each other. However, when gauging the hierarchy of preferences from the respondents rank ordering of preferences a distinctly different ordering of preferences is expressed (see table 13).
Table 13: Crosstabulation of rank orders by preferences.

<table>
<thead>
<tr>
<th>Rank order number</th>
<th>Preference (with column % for rank order)</th>
<th>Number of times mentioned/120</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*Schools (20%) Proper brick houses (17%) *Freehold (14%)</td>
<td>56 94 57</td>
</tr>
<tr>
<td>2</td>
<td>*Proper brick houses (19%) Freehold (10%) Shops (8%) Schools (6%)</td>
<td>94 57 66 56</td>
</tr>
<tr>
<td>3</td>
<td>Social and public amenities (12%) *Shops (12%) Proper brick houses (9%)</td>
<td>98 66 94</td>
</tr>
<tr>
<td>4</td>
<td>Social and public amenities (11%) Fair roads (8%)</td>
<td>98 58</td>
</tr>
<tr>
<td>5</td>
<td>Social and public amenities (11%) Shops (11%)</td>
<td>98 66</td>
</tr>
<tr>
<td>6</td>
<td>Social and public amenities (11%) **Fair roads (10%) Proper brick houses (9%)</td>
<td>98 58 94</td>
</tr>
<tr>
<td>7</td>
<td>*Social and public amenities (17%) Recreation and sport facilities (8%)</td>
<td>98 30</td>
</tr>
<tr>
<td>8</td>
<td>Social and public amenities (14%) **Fair roads (10%) Liquor outlets and entertainment (9%)</td>
<td>98 58 21</td>
</tr>
</tbody>
</table>

*indicates that where mentioned elsewhere the * preference has the highest column % in this particular rank order number.

**indicates that a * preference shares another equal rank order number.
The results are subject to speculation until the row percentages are considered. These appear in table 14.

Table 14: Rank order comparison of priorities: schools, houses and freehold.

<table>
<thead>
<tr>
<th>Number of times variable mentioned</th>
<th>Preference</th>
<th>% of times mentioned as rank order 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>Schools</td>
<td>59%</td>
</tr>
<tr>
<td>94</td>
<td>Houses</td>
<td>30% (ranked 2 30%)</td>
</tr>
<tr>
<td>57</td>
<td>Freehold</td>
<td>42%</td>
</tr>
</tbody>
</table>

Table 14 clearly shows the preference priorities and resolves the dilemma in interpretation of these in table 13. Schools, houses and freehold become the major priorities of respondents. Freehold shares first priority with schools as the most important criteria for evaluating preferential residential environments. The relatively higher percentages of proper brick houses in rank order 1 of table 13 may well be attributed to the frequency with which subjects volunteered this construct. According to Hinkle (Fransella and Bannister, 1977), these highest rank ordered preferences reflect people's superordinate constructs.

\[1\] (referring to table 13, page 97) The column % was used in table 13 to indicate the contribution made by a particular preference to a specific rank order. On table 14 the row % was used to indicate the specific contribution a rank order made to the total number of times a particular preference was mentioned.

\[2\] One of the problems of the relatively open ended structure of the main repertory grid questionnaire lay in encouraging respondents to select their own criteria of evaluation. It is a similar problem to that already discussed in the methodology section in connection with factor analysis of preference scores (see page 88). Restated, the problem was one where not all respondents were evaluating the same set of constructs but rather were doing so with their own selected set. High scores can then be dispersed among many variables which, if not mentioned very often, could lead to a drastic reduction in the number of high scoring variables within comparable information cells. Obviously greater homogeneity of thought within a population reduces this problem. That is to say, a more often cited construct may have a wider priority range for a heterogeneous value oriented population.
In this study, the number of times a preference was mentioned bears little relation to its position in the preference hierarchy. (Compare tables 12 and 13). For example, social and public amenities, although the most mentioned preference (98 times) is ranked an extremely low priority of 7, whereas freehold (mentioned 57 times) and schools (mentioned 56 times) enjoy the highest rank order scores. This then refutes Bannister and Mair's (1968) contention that the most often mentioned constructs are those that are 'most important' to respondents (refer to pages 75 and 82).

Results from the main survey grids support Pocock and Hudson's (1978) assertion that the repertory grid produces both designative and appraisive data. The structural relations between variables of the data is also made more explicit than in those of the pilot study. Consequently one might conclude from the foregoing results that respondents tend to use Fingo as a point of reference. It is the most frequently mentioned area for comparison purposes (see table 8) embodying most of the preferred aspects found in their residential environments. Referring to tables 8, 10 and 12 the two seemingly most popular areas, Fingo and Joza were almost identical with regard to preferences (see table 12). Exceptions were the extent to which respondents mentioned the presence of proper brick houses and, most noticeably, the absence of freehold property rights in Joza. The relative priorities placed on housing and freehold could determine black residential preferences. Table 13 indicated that houses and freehold shared highest preference priority. However, the significance of the importance placed upon different housing types is refuted in table 10 where both Fingo and Joza were preferred for proper brick houses. One might conclude, then, that Fingo as Charton (1979) suggests, would be the most desirable residential environment to Grahamstown blacks remaining the 'heart of the black community', considering their Group Areas constraints. It follows by the same logic that Tantye would occupy second position in a preferential residential environment to Joza, since it enjoyed similar housing status to Fingo and homeownership rights. This being the case, two points made previously are supported. Namely

\footnote{It is interesting to note that even though Joza has one hundred privately owned houses (Wilsworth, 1980) this does not feature in the responses.}
1. Wilsworth's (1980) (refer page 65) contention was that respondents felt competent to build their own houses and required in the living environment, greater security of tenure and improved infrastructure. Both the pilot study and the main survey would appear to support this.

2. Although Joza was seen to have better housing than either Fingo or Tantye (refer table 9), 'housing' was considered more than mere good shelter by the respondents. Turner's (1972) thesis together with other research findings in Third World housing mentioned in Chapter 2, is confirmed in this case. Here, planned housing estates were not as favourably perceived by those for whom they were intended when compared to site and service and freehold properties.

On the basis of evidence gained from this research project, planners then might feel that they would be better advised to look to site and service and freehold alternatives for providing blacks with residential environments that would be desireable to them. That is to say, if one is of the opinion that the residents themselves know what it is they require for a desireable living environment, the site and service and freehold policy would be the one to support.

The respondents highest priority (i.e. schools), however, appears anomolous in the context of this study given that it was expected that concern for the actual quality of the living environment would occupy respondents major interests. However, it is one aspect of the residential environment that has been recognised as an important one by Urban Foundation (see Fig. 1). One may speculate on the reason for schools being an important part of the urban environment. From the liberal point of view schools may be understood in terms of providing an opportunity for individuals self-development in acquiring skills and learning with regard to their urban

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1 It is worthwhile noting, however, that with survey research one is dealing in the realm of immediate constraints upon potential behaviour and not that of prospect, i.e. behaviour in a 'new society'. That is to say, responses reflect people's perceptions filtered by learned and experienced reality of the existing 'common sense world' and are not projections into the realm of future social possibilities.
context, In so doing individuals enhance themselves and can consequently contribute to progress and development within society.

The radical view however, understands schools in a different light. The fact that it is concerns such as the Urban Foundation and private enterprise that are initiating and supporting these programs, gives those with a radical perspective cause to doubt the altruistic nature of their intentions. Essentially schools are seen as the centres of transmission for the dominant ideology. The school in our society Heather (Procter and Parry, 1978, 161) notes

'shores up the privilege of the middle classes, and teaches the working class child, at a very early age, to be a failure for whom the good things of life are not intended. In this way, the school services higher education and the job market without disturbing the existing boundaries of wealth, influence and power'.

The interest by respondents in schools may yet again be interpreted perhaps more as a reaction to interests expressed by capital rather than as a direct concern initiated by the respondents themselves. In other words, concern for education on the part of the black working classes here does not, within their present circumstances, emerge as a quest for knowledge as such, as Kelly (1955) would have us believe. How else would one explain the fact, for example, that whereas schools emerge as important in people's cognitions in this study, during the study period the South African police had to declare the entire black township an 'operational area' whilst black workers and school children stoned education officials and burnt schools to the ground? (see Plate 9).
CHAPTER TEN

DISCUSSION OF RESULTS

The aim of this chapter is to investigate the interpretation of the results reported in Chapter 8 from the point of view of the liberal and radical perspectives on housing policy. Results will be studied from both perspectives simultaneously. Kelly's (1955) Personal Construct Theory will be used as the point of departure for discussion from the liberal and the radical perspectives. As noted earlier, although Kelly (1955) is essentially apolitical in his approach, certain aspects of his theory do lend themselves more easily to analysing the data from a liberal perspective than they do from that of the radical. The liberal view then will draw primarily from Kelly (1955) for support in its arguments since they both postulate cognitions as a function of personally perceived and experienced constraining circumstances. The radical argument on the other hand, although recognising this argument, questions the nature of cognitions related to those personal circumstances. In other words the validity of these personal cognitions as a true reflection of reality and therefore constituting true knowledge is queried by the radical view.

Essential to these arguments is the role of class influencing the creation of personal cognitions. In the liberal view, class is identified with the source of income in the division of labour, while in the radical view, class is defined in terms of the relationship of groupings of individuals to the means of production and is closely connected to the division of labour (Giddens, 1973). Whereas in liberal terms classes are identified as income groupings based on consumption, in radical terms such groupings refer to the degree of incorporation of labour into the dominant relations of production. Thus, in the following analysis in this chapter the respondents will be grouped according to incomes which will indicate three 'class' levels from the liberal view and which in turn will indicate the degree of incorporation into the dominant relations of production for purposes of the radical analysis. In the liberal view, then, it is the relations in consumption which determine 'class' and associated variations in personal constructs; while in the radical view it is argued that it is differential incorporation into capitalist relations of production which determine variations in these personal cognitions amongst a group that is a single 'class in itself' -- labour.
Kelly (Bannister and Mair, 1969) suggests that an individual's frame of reference is formed through the interaction of perceived and experienced constraints in everyday real world situations. Those experiencing similar situations then are expected to have similar values and priorities. However, results obtained in table 13 indicate that Grahamstown blacks are not all experiencing similar situations. The black population in Grahamstown may then not be as homogeneous a culture group as Wilsworth (1980) suggests. That is to say, there is some degree of ambiguity in the results in that the three top priorities also appear as second priority and, in the case of housing, third priority. The black group, then, seems divided in their priority ratings. Since both liberals and radicals agree that economic constraints are fundamental to all members of modern society, categorisation of groups by income forms a convenient starting point for analysis.

The following section will investigate the mental constructs of the group as a whole and then explore and test group homogeneity based on income. Factor analysis and crosstabulations have been used for this purpose. The factor analysis results will be discussed first to promote an overall understanding of the sets of associated variables that respondents used to evaluate important aspects of their residential environments. This will be repeated for each of three income groups. A series of supporting crosstabulations will be discussed thereafter. Conclusions based on these results will end this section.

10.1 FACTOR ANALYSIS OF ASSOCIATION MATRIX

The basis of the association matrix is to identify sets of associative constructs through factor analysis -- sets of constructs which could enlighten our understanding of overall black perceptions of their residential environments.
For the entire sample, two factors were identified. The first factor, accounting for 85% of the variance, was represented most ardently by shops (0.8), social and public amenities (0.7) and schools (0.69). The remaining 15% of variance of factor 2 was represented predominantly by gardens (0.71) and street lights (0.71).

The two types of perception isolated here could perhaps be interpreted as indicative of a dichotomous concern for public space (factor 1) on the one hand and for private space (factor 2) on the other. Alternatively the factors may be interpreted as concern for basic community needs (factor 1) and basic individual needs (factor 2).

A factor analysis of each of three income groups was then conducted to gauge the extent to which the groups construed differently from each other. The results were as follows:

**Upper income group.** Factor 1 (82% of variance) represented by schools (0.81), freehold (0.8), social and public amenities (0.76), houses (0.68), near town (0.68), dirty area (0.63), roads (0.61) and shops (0.6).

Factor 2 (19% of variance) singularly represented by streetlights (0.69).

**Middle income group.** Factor 1 (76% of variance) was represented by housing (0.87), racial areas (0.74), nearness to town (0.73), shops (0.7), schools (0.66), public transport (0.66), congestion (0.65) and sophisticated people (0.6).

Factor 2 (24% of variance) was represented by medical facilities (0.79), entertainment and liquor facilities (0.69) and living conditions (0.61).

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1The level of significance for factor loadings was set at 0.6, written in order of highest to lowest significance here.

2The factor analysis using preference scores also identified two main factors. Factor 1 (37% of variance) was represented by less congestion (0.95), medical facilities (0.87), safety (0.77) and streetlights (0.69). Factor 2 (25% of variance) was represented by garden size (0.65), living conditions (0.63) and houses (0.59).

3The three income groups were determined by consulting Table 6 and dividing as conveniently as possible the five categories into three. This gave a lower income group (R150 and under), middle income group (R151-R250) and upper income group (above R251).
Low income group, Factor 1 (84% of variance) was represented by gardens (0.75), streetlights (0.75), housing (0.69) and living conditions (0.6). Factor 2 (16% of variance) was represented by social and public amenities (0.85), shops (0.81) and entertainment and liquor facilities (0.63).

The results are confusing when related to those of the overall group. The lower income group conforms most closely of all to the overall pattern of construing described earlier. However, the relative importance of the factors are interchanged. That is to say, factor 1 for the lower income group is represented more by so-called private space rather than public space.

Each group does appear to operate from construing systems differing from each other as well as from the overall group. The upper and middle income groups construe over more and a wider diverging set of constructs than do the lower income groups for their primary factor set. These main sets, in addition, are not composed of the same variables and in turn they differ from the overall group results. In the disaggregated analysis by income group, for example, it emerges that except for the lower income group, the respondents did not display a clearly defined pattern of public vs private space perception but rather a conglomeration of both.

Another problem with the interpretation of this data is that each income group when individually examined, displays a high level of concern for housing. Yet when analysed as a whole housing does not factor highly in either set (0.51 and 0.42 for factors 1 and 2 respectively). This problem will be discussed in the conclusions at the end of the results section.

10.2 SOCIO-ECONOMIC GROUP CONSTRAINTS

Although all three groups appear 'privatised' to some extent in their conceptual frameworks, each of the income groups seem to vary in their construing systems within their wider socio-economic context. That is to say, each of the groups stress different components within their residential environment as important. For example, the upper income group stress schools and freehold, the middle income group housing and racial areas while the lower income group stress gardens and streetlights.
What this could reflect is the level of reality at which each of the groups operate within the system. That is, what 'use-knowledge' becomes available to individuals in each income strata to manipulate towards achieving their ideals within a dominant structural environment. One may then interpret the major factor in each income group as an overall orientation of their values within which one may identify those 'tools of manipulation' respondents themselves recognise as the means to promote their own position within the system. Thus the upper income group identify schools and property ownership as the means to participate more fully in the economic system; the middle income group identify proper housing and convenience to urban facilities; while the lower income strata recognise infrastructural elements as those important to their advance within the system.

This interpretation would support Hudson's (1980) contention that people are proto-applied scientists in search of 'use-knowledge' rather than proto-pure scientists as Kelly (Hudson, 1980) suggests. All three income groups differ from each other with regard to their perception of what means become available to manipulate their acceptance into and participation in the wider, white dominated urban system. These tools of manipulation may appear misleadingly as 'public space' perception in the overall factor analysis. Individuals appear to be able to identify the source of their differential inclusion into the system, identified as 'public space', and articulate these to survey researchers. That is, respondents are able themselves to specify what the structural barriers are to their becoming better versed in the dominant system.

In order to analyse this income based heterogeneity thesis more precisely a series of appropriate crosstabulations were performed. The ensuing discussion will centre around preferences in an attempt to analyse these group interests.
10.3 HOMOGENEITY OF SOCIO-ECONOMIC INTEREST GROUPS

In the light of respondents triple priorities (i.e. rank order 1 for schools, houses and freehold as demonstrated in table 13) the homogeneity of black Grahamstown residents values was thrown into question. Cross-tabulations of preference rank order and income were run to identify a possible relationship between socio-economic status and preference priorities. The results were as follows:

Table 15: Crosstabulation of income by rank order by preference. ¹

<table>
<thead>
<tr>
<th>Income group</th>
<th>Preference (priority 1)</th>
<th>% respondents rating preference as 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>R251 and above</td>
<td>Freehold</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Schools</td>
<td>27%  60%</td>
</tr>
<tr>
<td>R151 - R250</td>
<td>Schools</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>Houses</td>
<td>13%  63%</td>
</tr>
<tr>
<td>Under R151</td>
<td>Houses</td>
<td>21%</td>
</tr>
</tbody>
</table>

Clearly, for the upper income group, freehold ownership and schools were predominant as preferences. For the middle income groups, schools and houses were their primary concerns while the lower income group indicated housing as their main priority. Of the shared preferences of freehold and schools for the upper income group, freehold would appear marginally to be the top priority. Schools on the other hand were expressed as top priority for the middle income group. Low income people, on the other hand, focus simply on houses.

¹For convenience three categories were recalculated from the original five, taking into account the different sample numbers in each income category.
Upper and middle income groups appear split in their major priorities, then, suggesting that within these groups there may be a division of individual interests. This is evident from each group which expressed at least two alternative priorities. There appears to be a coincidence of priorities between a group's major concern and that of a secondary group in the income bracket immediately above it. That is, a section of the upper income group shares the middle income group's priority 'schools' while the lower income priority of 'houses' is similarly shared by a section of the middle income group. This division of priorities within an income group may be a function of the rather arbitrary income group divisions for purposes of this analysis. However, if one were to adjust the divisions in order to have priorities coincide uniformly with income levels, this would drastically reduce the numbers representing the upper income group and greatly increase those representing the lower income strata. This then, would confirm the radical notion of the structure differential incorporation within the black component of South African society, i.e. a small enclave of petite bourgeoisie in the upper income bracket and a mass of low wage workers on the other striving for either houses for survival or for education in order that they may join the petite bourgeoisie (cf. Stadler, 1981; Lodge, 1980). However, these groups represent only a small section of the total South African class structure and it must be reiterated that the differentiation expressed within income groups here merely serves to exemplify heterogeneity within a part of the working classes of the entire South African society.

Of interest at this point is that Turner (1972) also records the noticeable different orders of priorities for different income groups in Third World countries. Although similar general priorities emerge from both his study and ours, the results from this research project contrast directly with the results he obtained on priorities of various income groups in South America. There he found that low and lower middle income groups expressed primary concern with freehold ownership. The upper income priorities on the other hand were modern standard shelter (see Fig. 8). Freehold to the upper income group was only moderately important. One may speculate as to the reasons for this reversal of priorities between the upper and lower income groups. For example, it may be that those who can afford properties in Latin America are able to own land, whereas in South Africa, property ownership for blacks in those same terms is rare. That is, almost all black South Africans experience insecurity of tenure, while in Latin
America, this is the case for only the very poor squatters. Priorities may then reflect these circumstances.

Discussion will now resume on the problem of divisions of priorities within each income strata. The nature of preference priority divisions will be investigated in relation to these income categories.

10.4 NATURE OF PREFERENCE PRIORITY DIVISIONS

Table 15 indicates the upper income group's priorities as being freehold and schools; the middle income group's being schools and houses, while houses and a number of others form the priorities of the lower income group. It is possible that a particular section of the upper income group may desire to retain their existing rights to property and so explain the freehold priority in that group. A separate section within that group could favour schools as a priority on the basis of the added influence education has on admission into the rewards of the economic system. Alternatively, Davenport (pers. comm.) explains these priorities in terms of what respondents may already have within the existing system. For example, those upper income respondents already with property rights might respond with schools as their main priority1. The theory of there being at least two distinct interest groups within the upper income section

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1This could also help explain the divergence of the results in this project with those obtained by Turner (1972).
is further enhanced by results of the resistance-to-change grid. Schools and freehold resist change equally (scores of 5 each). Schools override every other priority while freehold overrides all except better living conditions (rated 6 to freehold score 4) and equals lower rent (scores of 6 each). The 'schools priority' group, then, could possibly be in the majority. The possibility exists then that the minority citing freehold as their major priority were strongly represented only because they formed a group who were unanimous in selecting their main priority.

The explanation may be that the potential of education for greater economic welfare is especially relevant to the group of middle income parents. The middle income group resisted change on schools throughout to form a considerable interest group. Following Davenport's (pers. comm.) thesis, those in the group favouring housing priorities may have been those experiencing constraints of their present dwelling situation. Housing resists change next to schools except to be equal to medical facilities (score of 5) and freehold (score 5 to houses 4). Freehold resists change next, except in relation to medical facilities (score 5 to freehold 3) and schools (score 7 to freehold 4). This could indicate a wider set of interest groups than found in the upper income group.

Of all the income sectors, the lower income group displays the least group homogeneity. Although concern for housing units was this income group's main concern, housing is not the most resistant to change priority. Instead, the highest resistance-to-change scores appear for all of the three variables (i.e. schools, freehold and houses) amongst the lower income section. Of these, schools (score 5) resisted change to freehold (score 4). Houses and schools had an equal score (4 each) while houses and freehold were also equal (3 each). The lower income group then appears to be the most fragmented in their priorities in that individuals express a wider range of major priorities and they cannot agree as a group whether schools, freehold or housing is their major priority.

The divided value responses of the three income groups are tabulated in table 16. It further supports the foregoing proposition that besides the heterogeneity of the entire culture group, there are separate interest groups within each socio-economic group. For example, although in the upper income group schools and freehold could conceivably be and were a shared priority, schools did appear to be an alternate priority to those in the upper income group who were not concerned with freehold.
Table 16: Priority structure of preferences: schools, freehold and houses for each income group.

<table>
<thead>
<tr>
<th>Income group</th>
<th>Rank order preference</th>
<th>% times mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper income</td>
<td>Schools/freehold (shared 1)</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Schools (1), freehold (2)</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Freehold (1), schools (2)</td>
<td>4%</td>
</tr>
<tr>
<td>Middle income</td>
<td>Schools/houses (shared 1)</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Schools (1), houses (2)</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Houses (1), schools (2)</td>
<td>4%</td>
</tr>
<tr>
<td>Lower income</td>
<td>Freehold/schools (shared 1)</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Freehold (1), schools (2)</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Schools (1), freehold (2)</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>Freehold/houses (shared 1)</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Freehold (1), houses (2)</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>Houses (1), freehold (2)</td>
<td>4%</td>
</tr>
</tbody>
</table>

In the number of times upper income respondents cited freehold and schools together in a questionnaire, they vied relatively seldom with each other for top priority. The same can be said for both the middle and lower income group responses. Thus within the three selected income groups there are different interest groups with diverging value orientations. This is especially evident in the lower income section.

The relation of the results investigated here to the liberal and radical theories of housing will be discussed in the final chapter, to follow. Fundamental to the investigation will be to query the nature of knowledge from these two viewpoints.
CHAPTER ELEVEN

CONCLUSIONS

In the concluding section, Kelly's (1955) proposal regarding the information that will be obtained from the repertory grid will be evaluated against the data set of this research project. This will be followed by a critical evaluation of Kelly's (1955) Personal Construct Theory, initially as it relates to planning action and then as a theory of explanation. Finally the marxist interpretation of the responses will be studied as another theory of explanation.

11.1 EVALUATION OF THE REPERTORY GRID METHOD DATA SET

Kelly's (1955) thesis that the repertory grid methodology reflects pathways people perceive they are free to move along, is supported, in that individuals do appear to react to their perceived constraints. That is, the different socio-economic groups construed in ways which would probably positively promote their individual welfare with the existing system of constraints. This is evident in the factor analysis as well as the crosstabulations where from a range of options, certain 'tools of manipulation' were selected. That is, the upper income group preferred schools and freehold; the middle income group required schools and the lower income group desired housing. As Kelly (1955) suggests, people do appear to decide according to a theoretical conceptual framework produced by perceived and experienced reality. His thesis also provides a useful and pertinent point of departure for attempting further to uncover the source of varying group interests. That is to say, the effect socio-economic differentiation has on each group value orientation. The aggregate responses of individuals when categorised into income groups would seem to support this. That is, the higher individuals rise in income, the greater the range of means to determine their own personal futures within the existing system comes within their ambit.

On the basis of the data for the group as a whole, results accord with Nyquist's (1971) suggestion that aspirant social status within the black Grahamstown community is evaluated in terms of high education, income and occupation and property ownership, as it is the education and property
aspects that are the group's highest priorities. His assertion that it is the upper income group that act as the intermediaries and 'leading edge' between blacks of Grahamstown and their ultimate reference group (the whites) is confirmed by the results in that, as a whole, group aspirations do appear to be towards values which whites in South Africa demonstrate. These aspirations, upon analysis, are basically those of the elites in the black community. Parkin's (1971) three major 'meaning systems' based on class stratification perhaps provides the terminology appropriate to the problem here. For example, in South Africa the whites may represent Parkin's (1971) dominant value system while the black elites may represent his 'subordinate' or negotiated value system. It is questionable from the available evidence that the radical value system is represented amongst the lower income groups, although the repertory grid methodology is perhaps not the appropriate tool for assessing such a proposition.

11.2 SOCIO-ECONOMIC GROUP CONSTRAINTS

How, then, are we to probe further into the social meaning of the results? By way of background for the continued empirical discussion in the sections to follow, Althusser's (Callinicos, 1976) and Gramsci's (Boggs, 1976) theories on consciousness need to be summarised.

Althusser (Bottomore, 1981) notes that people enact an ideology in the material world and so become conscious of their position in that world. In the process individuals can alter the lived relation between themselves and the world. The superstructure although it dictates the lived relations and feeds back on these develops autonomously as regards politics, the economy and ideology. Gramsci's (Boggs, 1976) thesis is that the superstructure is the object reality created by the interaction of people with their material environment. It provides the context within which individuals gain consciousness and can change their relations of existence. The levels of consciousness between the two classes would differ as the bourgeoisie, having more power of access to the apparatus to legitimate their ideology, would be able to impose their structures on the working classes. Gramsci (Boggs, 1976) maintains that consciousness is relative to class and that although structures determine and shape human activity they themselves become altered in the process. The oppressed within that context can then become aware and can change and transform the limitations imposed by class structures. The first object, then, is to investigate the levels of consciousness between the two classes. It
should be noted that the upper income strata within the Grahamstown black community does not belong to the capitalist class *per se* but is rather, as Nyquist (1971) suggests, the higher class of the lowest stratum in the South African class system if Weberian terms are to be used. As noted earlier, however, this group is nonetheless politically important to the bourgeoisie and the state in its attempts to prevent total polarisation in South Africa. That is, this petite bourgeoisie group is essential as both a stabilising and a fragmenting catalyst for the continued, capitalist accumulation process within the South African capitalist system. This is because, to use the radical terminology, the group is most deeply incorporated into capitalist relations of production.

The various strata, however, clearly recognise their immediate priorities as well as the short term means by which these can be accomplished. Recent changes in the institutional organisation has been taking place in that concessions are being granted concerning self-help housing, 99 year leasehold and education programs. It might be inferred, therefore, that the oppressed in general are acting out their lived relations through an ideology and are, in so doing, altering their contextual environment in a manner consistent with that ideology. Nevertheless, as Harvey (1978) observes, co-operation is never complete as people's ambivalence to dominant values often indicates. This is witnessed, for example, by the 1980 school boycotts when blacks rejected the inferior Bantu education system. Such actions point to an awareness that the existing type of education discriminates against and limits equal integration into the economic system. It seems that the blacks too put their trust in a 'free enterprise system' to level inequalities and promote development. This is in contrast to the separate development policy of Apartheid which is seen as far from equalising, and actually promoting and intensifying inequality and development at their own expense.

Perhaps another function of increased awareness is that the higher socio-economic group appears to be more co-ordinated in their activities in that their interests and values tend to coincide. This could suggest that they are not as devisive and competitive as, by comparison, the lower income group, as Nyquist (1971) suggests. However, their unity could be attributed to their culture or ethnic group as inferred by Nyquist (1971) and stressed by government policy. Evidence of unity here does
not support the thesis that groups combine because they have cultural or ethnic interests. Rather it is apparent that membership to a group of similar material standing affords greater advantages in a highly competitive capitalist system. Ethnic grouping within the black Grahamstown society would further fragment and disadvantage all members in an already clearly heterogeneous group.

With regard to the problem raised earlier as to why housing, although displaying a high level of concern for each income group, did not feature prominently in the overall factor analysis, it is suggested that housing as an issue in the overall group priorities is dissipated by the more coherent and hence apparently more urgently felt priorities of the upper and middle income groups. That is, when even a small group can uniformly articulate their priorities, these are better represented in the larger corporate analysis. Housing, though the main priority of the lower income group is actually representative of only 21% of that group (see table 15). It is postulated that individuals within this income group, in order to survive, are forced to adopt an 'ecological attitude', requiring a search for diverse means and sources of economic livelihood and hence their value priorities will be divided according to this wider range of economic interests.

11.3 RELATION OF RESULTS TO PLANNING ACTION

Perhaps because of the apparent unity of the upper income group, it is their preferences which dominate the results of the research project when analysed as a whole. Were planning action to be taken on these results it would serve their corporate advantage more so than those of the lower income group. However, in not recognising that there are varying interest groups within the black population as a whole, researchers run a risk of responding to those often smaller groups who are politically more organised and coherent, and in the process leaving perhaps the vast majority's needs unattended. This is quite evident in this research project where a questionnaire format was used which was relatively obscure and the aims of which were not readily self evident.
To reiterate, therefore, upper income interests emerged as overall group interests by virtue of the fact that upper income values are internally homogeneous whilst other income group's values are not. This runs contrary to Dewar's (1980) wish and Stringer's (1976) assertion that every individual would actively contribute equally to decision-making in the planning process when planners used the repertory grid method of inquiry. That is, because it was a method that concerned itself with individual construing systems, everyone would enjoy equal representation. In fact, the views of the more politically coherent group tend to be overrepresented in the results of such research.

It would seem that even with a relatively open ended and less structured (and therefore apparently more 'democratic') questionnaire such as the repertory grid, the methods for data collection within the social sciences end up serving the interests of those who can articulate their problems as a homogeneous group (i.e. in this case the higher income group). These results, then, run counter to Dewar's (1980) aims, and consequently those of the liberal paradigm, of finding research methods which respond equally to the majority as to the more articulate minority group. It appears that no matter what presently available methods are used in survey research, within a particular ideological environment, the more articulate minority are consistently overrepresented. For example, in the factor analysis of the total association matrix of this study, shops, social and public amenities and schools -- all middle and upper income priorities -- emerge as factor 1. In evaluating the preferences for the group as a whole, too, schools and freehold again as upper and middle income concerns, enjoy higher representation while lower income concern over housing emerges as relatively secondary (see tables 13 and 15). Resistance to change scores for the overall group too would provide results which would serve upper and middle income interests above those of the others. Here schools which are upper and middle income interest resists change above freehold and houses (score of 5 to 4 and 3 respectively) while houses and freehold enjoy equal scores of 3.

Implementation in policy making circles of results such as these -- results which were obtained by scientifically rigorous, quantitative and objectively conducted social science research methods -- would consequently result in catering for the priorities of a relatively small and privileged section of the black community, rather than the apparently more diverse
priorities of the majority. In this way it would reinforce the already 'common sense' view of things in the black community and perpetuate bourgeois ideology.

One may understand the reasons for the more politically articulate group being better represented here in terms of Olson's (Harvey, 1973) comments regarding the structural bias favouring the rich in the capitalist economy. He argues that the politically organised group would gain in the bargaining process because institutional organisation was such that it would automatically redistribute rewards in their favour. In this regard, Harvey (1973, 78) notes that

'We can expect considerable imbalance in the outcome of within- and between-group bargaining over external benefits and costs and collective goods because (1) different groups have different resources with which to bargain, (2) large groups in the population are generally weaker and more incoherent than small groups; and (3) some groups are kept away from negotiation altogether'.

The redistribution of rewards then is in direct proportion to the political articulation capabilities of a group which is in turn structurally determined. What becomes clear, then, is the influence of the physical and ideological contextual environment within which individuals operate. Without even considering the nature of the interests and concerns themselves, there is an essentially more basic problematic of obtaining a data set which would not automatically overrepresent the already represented members in a society. This is indicative of the problem to be experienced in any situation where the contextual environment is conditioned by physical and ideological structuring. That is to say, in any situation where one group plays a major part in decision-making for another group and implements these decisions, one may expect to encounter the problem that the dominant groups values and interests will become institutionalised in the contextual environment and will consequently be reflected in the subordinate groups cognitive system as their own apparent ideals.
Although it does enable a satisfactory explanation of circumstances 'on the ground', so to speak, there do seem to be some shortcomings in Kelly's (1955) Personal Construct Theory as a basis for deeper explanation. Whilst the repertory grid does accurately reflect people's construing systems regarding their circumstances and behaviour, it does not seem to enable an accurate interpretation of why these circumstances emerge within a given macro context without encountering major contradictions. Thus, combining the liberal political perspective with the derived results, managerial incompetence at the macro level might be blamed for present black housing circumstances. However, this does not explain, for example, why the competitive ethic dominates in society over meaning systems which encourage co-operation.

Were knowledge acquisition the primary motivating force for people's behaviour, as Kelly (1955) maintains, the co-operative ethic should prevail. That is, in the quest for knowledge, people would naturally be co-operative. Yet the capitalist ethic is based on intense competition, i.e. through competing and bargaining, one obtains what one wants and in the process one gains information for future decision-making. This clearly refers again to use-knowledge. It seems then that it is the type of knowledge acquisition that is being investigated. Interestingly enough Kelly's (1955) original thinking appears to be referring to the same type of knowledge for which the radicals search, i.e. true, scientific knowledge of reality, whereas in practice, given the conditioning function of a particular structural context within which individuals make decisions and operate generally, a different type of information, use-knowledge, is required. This, then, is the ideological body of knowledge which is expressed by the respondents and referred to as such by the radicals. The context within which use-knowledge is required, given class interests, may well necessitate individuals to operate on a competitive basis. Thus they withhold that information which will give themselves some advantage in a future bargaining situation. This questions the liberal argument that differentiation on ethnic grounds is essential because people have different cultures, interests and values. Within the structural context necessitating implementation of use-knowledge, differentiation on these grounds may only be important to the individual in a capitalist system. This would provide the material advantage for example, of membership to
a culture group in the context of a highly competitive society. Alternatively these differentiations may also be used as a basis upon which to manipulate, fragment and disorganise working class unity.

11.5 MARXIST THEORY AND EXPLANATION

Priorities indicate what institutional resources become available to individuals relative to their class position. As mentioned earlier, there is little correlation between the number of times a preference was mentioned and its position in the preference hierarchy. This could be taken as evidence that the repertory grid method initially extracts people's subconscious value system. However, when these have to be evaluated on the level of implementation, i.e. according to some point of reference such as an ideology, naturally those constructs that enable the individual the greatest advantage are selected as highest priorities, remembering that these individuals are operating in a capitalist system (see tables 12 and 13). The point here is that people may be naturally prepared to accept socialism unless they are educated otherwise.

In marxist thinking, then, the elicited priorities do not indicate a level of awareness or consciousness but rather a level of incorporation and participation in the ideology in a particular system. That is, the extent to which individuals have become ensnared by the dominant ideology. In expressing these preferences individuals form interest groups which indicate those areas most vulnerable to offers of inducement. They indicate those features in the residential environment that can further successfully enhance alienation and commodification of labour in their work environment. In so doing, workers themselves are actually co-operating with their oppressors and encouraging the intensification of their own daily misery. The physical and psychological conditioning within this contextual environment then appears to have been highly effective, since groups of individuals are willing to participate in their own exploitation. These individuals levels of consciousness, in a radical sense, appear to be extremely low where they are operating in a particularly structured context such as the South African case. Here use-knowledge mediated by the institutions such as schools has been carefully regulated to ensure a limited and select inclusion of the working classes into the dominant system. However, where institutional reform has not kept pace with the
degree of physical and ideological structuring, the individuals affected have themselves broached the issue towards a reformulated constitution as, for example, in the 1980 school boycotts. Ideology then may be as profoundly unconscious as Althusser (Bottomore, 1981) suggests.

Althusser (after Bottomore, 1981) maintains that ultimately the mode of production determines the social formation. Economic organisation does give South Africa its characteristic social form since it is from its particular capitalist mode of production that a peculiarly South African ideology has evolved to dominate the social system. The ideology of Apartheid has enabled the dominant capitalist class to maintain its hegemony and control the working class to capitalist ends. For example the De Lange Commission Report is geared to help educate blacks only to the level necessary for them to become efficient workers; the Orderly Settlement of Black Persons Bill sees black settlement in the same way; and so forth. Apartheid ideology has proved highly successful as an institutionalised self-regulating device to reproduce certain social relations of production in such a way as to perpetuate the biased outcome of the class struggle. That is, it dupes labour into co-operating increasingly in its own exploitation. Labour is rapidly reaching that point in time when it can be consulted in the planning process and will respond with affirmations of the liberal theoretical framework.

The extensive success of Apartheid ideology in dissipating working class unity is demonstrated in table 15 where the increasing lack of unity progresses in preference consensus from the upper to the lower class. One may speculate that where the ideological component has been paramount in the co-optation of labour, as in the South African situation, the political, economic and ideological may each appear as autonomous. That is to say, people co-operate because the dominant ideology compels them to see no alternative. Ideology thus gains efficacy through a superstructure which has been implanted long enough to ensure the perpetuation of a particular mode of production.

It is difficult to argue that institutional changes have come about as a result of individual or group action based on increased awareness. Instead, institutional changes could more perceivably have come about as a result of two motives. One may be as a result of capital seeking new, economically
more efficient ways of expropriating profits. The other may be the forced
reorganisation of production as a reaction to working class protests
against excessive exploitation. That is to say, individuals can only
alter their lived relations in this context within limited bounds.
People within these structural constraints then may seldom evolve a new
world view as Gramsci (Boggs, 1976) suggests. Apartheid ideology and
and the appropriate legislation then have had to be modified to accommodate
changing economic relations in the capital accumulation process. For
instance, in the face of a near saturated white clientele, the need
has arisen to create markets in black areas through upgrading the resi-
dential environments and in the process increasing commodity requirements.
For this purpose the role of the state has been vital in universalising
class interests. In order to ensure a cheap labour supply in the capital
accumulation process the state has had to create a 'middle class' or
petite bourgeoisie from the black group. Once this elite group has been
bribed by capital through minor concessions to adopt the capitalist ethic,
e.g. greater privatisation and individualisation in the consumption sphere,
they serve as a buffer against uprisings from the working class mass such
as in the case of Mpanza's squatter movements in 1947 (Stadler, 1979).
This process is, however, not in the long term interests of capital but
displays yet another example of the internal contradictions of capitalism.
Concessions granted to the working class in the process of increased
capital accumulation requires larger concessions to be granted in the
future which must ultimately provide the environment for increased
consciousness where disparities between ideology and material reality
become irreconcilable. For instance, Berry (1979) notes that labour can
often consume too much housing for the long term good of capitalism.

It is perhaps in the context of this overconsumption and overexploitation
of the proletariat that Gramsci (McCarney, 1980) and Marx place their trust
in the revolutionary consciousness of the masses. For both Gramsci (McCarney,
1980) and Marx the proletariat hold the key to revolutionary action.
However, their expressed preferences and actions endorse the 'distorted
solutions' to everyday life. Possessing the labour power in society does
not appear at this stage to enable labour to break free of their ideological
environment, especially where superstructural forces mould labour in the
residential environment and at work.
In a system where ideological structuring is all-pervasive institutionally and structurally, few people ever encounter, let alone consider, any alternative perspectives. It becomes increasingly understandable, then, why the state needs to be so repressive in the face of a threat of a bloodbath should this intense version of the capitalist ideology begin to falter, and alternative, less contradictory perspectives present themselves to the masses. Also understandable under the circumstances is the urgency of concern that no alternative way of thinking should be presented.

In the final analysis then, the question is, to which of the two levels of reality would one more effectively direct one's concern: the level of true, scientific knowledge where one attempts to expose and present reality itself devoid of ideological mystification or, at the certain risk of incurring the wrath of society at large, does one attempt to expose the instruments of ideological mystification and repression themselves? That is, prove that use-knowledge only has value within a context where class interests need to be preserved. This constitutes a dilemma which must face all researchers concerned with the social sciences.

11.6 CONCLUDING REMARKS

In conclusion, the results indicate the basic tension between the liberal and radical paradigms and thereby also the humanist and radical approaches. For instance, it is very difficult to adopt the liberal view on how to solve local issues if one supports the radical analysis of the wider context. Equally, it is impractical if the aim is to raise people's consciousness to their everyday circumstance, to practice an orthodox radical stance. This is especially so in countries which ideologically, politically and economically, are geared towards the intensification of capitalist development and which have labour's co-operation embedded in the physical and ideological structure of society. In addition, evidence from research into countries such as Hungary (Konrad and Szelenyi, 1977) indicates that housing problems may be almost equally rife in communist as capitalist countries. It is questionable, then, whether the communist social and economic organisation is anything other than a reconstituted capitalist system geared to even more efficient exploitation of labour through equally subtle ideological manipulation.
Both systems identify 'progress' in terms of economic growth and as such display ecological shortsightedness. That is, both encourage large scale organisation of resource exploitation as the basis for economic and human 'development' and arrange their economy and society accordingly. Given these as ideological priorities the outcome must of necessity, benefit the minority at the expense of the majority. Individual's relations to the mode of production although altered in the communist society, places them in no better position of control over their own labour power and hence consciousness. Labour thus remains a pawn to capital's interests even in communist societies. This is not to say that social change must be sought in a changed ideology rather than a changed mode of production. Ideology is after all, enacted in the economic realm. Ultimately, it is the mode of production which determines the ideology. However, what it does suggest is that there are people in positions of intellectual power who are able to take advantage of an alternative perspective. For example, McCarney (1980, 70) notes that 'ideology is always to be contrasted with science; and while the mass of mankind is condemned to live in the imaginary relationship, the theorist has access to an alternative'. It is these people who need to direct their energies into structural reorientation so as to benefit labour. By this it is meant that the appropriate existing institutions may be manipulated to promote the anarchist ideal. That is, to bring about changes in relations of production such as exist in small scale ecologically oriented modes of production. Action may also be taken to promote situations where no group dominates another in manipulating the contextual environment within which individuals make decisions. This situation then may facilitate an altered state of consciousness to a level where those endowed with the majority of labour power in society themselves may control its apportionment. Within this changed contextual environment the basis of decision-making then would be on true, scientific knowledge, making people more responsible to themselves and their natural surroundings as opposed to some outside group.

It is in this direction that future research may profitably be directed. It is only within such a conceptual framework too, that present rhetoric may be placed in its proper context and consequently take on its more appropriate meaning. Terms then will not be removed from context to serve class interests.
REFERENCES AND BIBLIOGRAPHY


Berry, M. (1979): Marxist Approaches to the Housing Question, Research Memoranda 69, University of Birmingham, Centre for Urban and Regional Studies.


Butterworths, Statutes of the RSA - Housing.


Dwyer, D.J. (1975): People and Housing in Third World Cities, New York, Longman.


Jessop, R. (undated paper), Recent Theories of the Capitalist State.


Maasdorp, G. and Humphries, A.S.B. (1975): From Shantytown to Township, Cape Town, Juta.


Survey of Race Relations in South Africa, Publications by Institute of Race Relations of South Africa.


*Economy and Society*, 1,4, 425-431.

Wolpe, H. (1980): Towards an Analysis of the South African State, 
APPENDIX A

OSGOOD'S SEMANTIC DIFFERENTIALS
Running temporally and orientationally parallel with Kelly's (1955) Personal Construct Theory, is Osgood's (1957) Semantic Differential. It is an attempt to uncover people's meaning systems through analysing word meaning. The technique requires the researcher to preselect constructs to be evaluated on a number of bipolar adjective scales. For example, in assessing people's images of a wilderness, the researcher may select wilderness as the concept. A selection of several 7 point bipolar scales is then made, for instance wilderness may be evaluated in terms of order ______ x ______ disorder or safe ______ x ______ unsafe, etc. An indication is then made, in this case an 'x', at the pole which accords with the respondent's expressed image of how he/she evaluates that concept in the given terms. Osgood (1957) maintains that this enables greater insight into an individual's meaning system.

Osgood's (1957) Semantic Differential theory was, according to Bannister and Fransella (1971, 59), 'a very ambitious attempt to establish general psychological dimensions of word meaning which would hold good for all men in all places'. Osgood (1967) proposes Semantic Differentials as a means of assessing different sets of people's subjective culture through measuring certain universals in phonology, grammar, and semantics that render them mutually translatable even though they do display uniqueness in those same areas. Osgood (1976) attempts to demonstrate the universality of three dominant affective features forming the basis of individuals construing systems: Evaluation (judged as Good/Bad), Potency (Strong/Weak) and Activity (Active/Passive). He acknowledges that the word is not the object but argues that the word acts as a stimulus which in a given situation regularly and reliably produces a predictable pattern of behaviour. The fact that how we perceive, think and formulate our implicit philosophies depends upon the structure of the language we speak, Osgood (1976) notes, was pointed out early on by Edward Saphir and Benjamin Lee Worf. Implicitly here, Osgood (1967) takes in the essential historico-cultural part society plays in the development of people's meaning system.

Bannister and Mair (1968, 121) note that he argues that 'meaning is a multidimension in space and that a particular word will be represented by a point in this multidimensional space'. Semantic Differential 'postulates that meaning can be mapped into a three-dimensional spatial
model, in which the dimensions are mutually orthogonal" (Pocock and Hudson, 1978, 69). Osgood (1967) is concerned then, with a concept-studded semantic space which is potentially quantifiable. Osgood's (1967) study demonstrates that semantic space is multidimensional and that people evaluate things differently depending on the relative importance factors have as they vary within their judgement frame of reference. Meanings therefore vary multidimensionally. He notes that in the factor analysis of people's judgement of things, the evaluative factor pervades human judgements. He speculates that 'attitudinal variables in human thinking, based as it is on the bedrock of rewards and punishments both achieved and anticipated, appears to be primary' (Osgood, 1967, 37). Potency factors and activity factors follow respectively in people's judgements of space and meaning.

CRITICISM OF SEMANTIC DIFFERENTIAL TECHNIQUE

Bannister and Fransella (1971) however, regard Kelly's (1955) Personal Construct Theory and repertory grid methodology of uncovering people's construing systems as a superior technique. For one, for example, the repertory grid does not require the preselection of either elements or descriptors. These are delineated by the respondents themselves. There can therefore be a greater tendency toward an inbuilt bias to the research project than one would have with the more open-ended repertory grid technique.

Semantic Differential displays major shortcomings in the extent of investigation that repertory grid technique investigates more convincingly and as a matter of course (Bannister and Fransella, 1971). They criticise Osgood's (1967) Semantic Differential technique in that in his research results the Activity, Potency and Evaluative words fail to cluster distinctly enough from each other in the analysis and so do not produce convincing results. The superordinacy of these three words fundamental to Osgood's (1967) Semantic Differential, Bannister and Fransella (1971) maintain, can be extracted from Hinkle's resistance-to-change grid and the implications grid. They argue that the Semantic Differential is basically a sophisticated form of the repertory grid's ratings scale procedure with the underlying factor analytic rationale which is common for such procedures (Bannister and Fransella, 1971, 134).1

1It should be pointed out too, that the scales obtained from the ratings grid are appropriate data to conduct a multidimensional scaling analysis. This could also be used on Osgood's (1957) adjective scales.
Bannister and Fransella (1971) do admit that its extensive use could possibly add considerably to knowledge of specific empirical relationships in a number of applied contexts. However, they maintain that it contributes little to our theoretical understanding of the nature of meaning and to the cause of explanatory science. They regard the repertory grid and Semantic Differential, far from being related instruments or approaches, rather as contrasting outcomes of different types of psychological approach. Further thought would seem to confirm their suggestion. The repertory grid uses triads for comparing elements and categorising them according to like and unlike characteristics. In the Semantic Differential technique, the construct itself and not the element is placed and evaluated on a descriptive bipolar scale. That is to say, no categorisation of the elements according to their characteristics takes place. The triad system is essential for facilitating categorisation, whereas the bipolar system facilitates description. The responses obtained from the repertory grid are then not of the same order as those obtained from Osgood's (1957) Semantic Differential. Pocock and Hudson (1978) evaluated the results obtained from studies on shopping environments where both the Semantic Differential and repertory grid were used as research methods. Results from the Semantic Differential method were entirely evaluative whereas those from the repertory grid were both designative and appraisive. They do, then, elicit different types of data which makes them incomparable although perhaps, not uncomplimentary. Essentially the method used should be appropriate to the information required. Both methods are amenable to greater open-endedness and a reduction in researcher bias.

Finally, Semantic Differential runs foul of the same criticisms from the marxist perspective as does Kelly's (1955) Personal Construct Theory, in that it does not enable the researcher to transcend to the realms of prospect but merely reflects respondents imagined reality. In addition Semantic Differential also does not question the possibility of socialisation being inherent in language and that responses may vary with and express the extent of successful socialisation of individuals.
APPENDIX B

ALTERNATIVE METHOD FOR REPERTORY GRID ANALYSIS
Bennett and Bowers (1976) suggest the use of multidimensional scaling (MDS) for the analysis of repertory grids. MDS basically constitutes factor analysing matrices of sums of cross products in order to discover the underlying dimensions individuals or groups of individuals construe on. Bennett and Bowers (1976) suggest MDS as a highly appropriate technique for analysing judgements of similarity between variables, i.e., qualitative judgements, so that the dimensionality of construing can be assessed. Problems occur in that the judgements are qualitative; there is no yardstick of measurement to the degree of similarity between variables. MDS, however, is a technique which enables the conversion of these non-metric measures into a form suitable for factor analysis through producing matrices of sums of the cross products.

The method they describe requires a prestructured questionnaire for use with the repertory grid. Each respondent is presented with all possible triads of constructs. For each triad they select a most similar and least similar pair until all combinations are exhausted. Bennett and Bowers (1976) point out the advisability of having as many stimuli as possible to detect significant dimensions. Subjects are not required to quantify a stimuli, but merely indicate which two variables are similar corresponding to one which is thought most different. The method of MDS then, produces distances between the constructs and an origin (which it determines in the processing) and then produces a matrix of sums of cross products which may then be factor analysed to produce the dimensions within the constructs. Levels of construing may then be analysed and interpreted.

The use of MDS calls for a specific methodology for the repertory grid technique. It requires a manner of asking questions which can be analysed by MDS, i.e., a very specific questionnaire for MDS and factor analysis to reveal what dimensions people construe on. MDS is also a method which, as Bennett and Bowers (1976) point out, may well be very demanding on the subjects themselves. Interviews would be lengthy, questions repetitious and the demands on subjects to gauge similarities between areas relative to each other may be unrealistically high. In addition, this procedure could possibly create too subjective and inaccurate a data set.

The method adapted for the repertory grid technique in this research project was far less limiting than that suggested by Bennett and Bowers (1976). The grids that were developed here, would be amenable to MDS analysis using the ratings grid data. In addition, the data set produced
by the adapted repertory grid for purposes of this research project could be analysed in far greater detail and also avoided many of the problems Bennett and Bowers (1976) mentioned concerning interviews. The questionnaire developed was more informative, being fairly open ended and less structured. It was consequently less restrictive and boring to both respondent and interviewer. Finally, its format was processable by the computer system at hand. There were no readily available computer facilities for MDS.
APPENDIX C

PILOT STUDY QUESTIONNAIRE
QUESTIONNAIRE: URBAN BLACK’S CONSTRUCTS OF RESIDENTIAL ENVIRONMENTS IN CITIES OF THE EASTERN CAPE

Questionnaire No: ............ Date: ............ Interviewer: ............

Age of respondent: ........ Marital status: ........ Occupation: ............

Male/Female: ............... City and neighbourhood: ............... 

SECTION 1

What are the different black residential or living areas of ......................... (town) as you know them? (Maximum of 5).

1. ........................................................................
2. ........................................................................
3. ........................................................................
4. ........................................................................
5. ........................................................................

Interviewer enters names into table 1 and asks for similarities and differences between pairs.

SECTION 2

Thinking now of ......................... (town) as a whole (circling motion with hand), what are the different residential areas of the city that you recognize? (Maximum 5).

1. ........................................................................
2. ........................................................................
3. ........................................................................
4. ........................................................................
5. ........................................................................

Interviewer enters names into table 2 and asks for similarities and differences between pairs.
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<th>AREA 2:</th>
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TABLE 1 (cont.)

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APPENDIX D

MAIN SURVEY QUESTIONNAIRE
RHODES UNIVERSITY - GRAHAMSTOWN

This questionnaire is designed to elicit the mental constructs that Blacks have of their residential environment in the Grahamstown African township.

---

Male/Female

In which category does your age fall?

- Under 20 years old
- 21 - 30
- 31 - 40
- 41 - 50
- 51 and over

What is your occupation?

What is your approximate income according to these categories?

- Under R50 per month
- R51 - R150
- R151 - R250
- R251 - R350
- R351 and over

In which suburb in the township do you live?

---

QUESTION FOR GRID 1.

These are 8 places in the Grahamstown township - do you know where all of them are? (Show places on map if in doubt and lay out cards with place names). I'm going to read you these instructions of what I want you to do.

I want you to think of things that are similar and different about these residential areas. Think of something that is the same in two areas that is different in the other. Then choose 3 cards. Select any three cards out of these eight. Each card has the name of a black residential area in Grahamstown written on it. Once you have chosen three, I want you to tell me which two are alike in some important way, and different from the third.

Please tell me in what way the two are alike and in what way the third is different. I want you to do this eight times for me please, each time telling me about similarities and differences in the areas you choose, (remember, you can choose any combination of areas).
(Offer to read the instructions again.
Note with 0 the three areas that have been selected.
Note the construct and ask for a contrast, mark with X for two that are similar.
Ask which, the construct or contrast is preferred and underline the preferred one.
Proceed to next line for new construct until 8 constructs have been completed).

QUESTION FOR RATINGS.
We now want to find out how all these places seem to you with regard to the things you mentioned about them.
These two places (mention them) you said were the same with regard to (construct 1).
How different are the (constructs) in these two places compared with these other places? In (.... place), how similar are the ......(constructs) to those in (similar place) or to those in (different/contrast place)? Are they extremely ......, fairly ......, or not very ......? Or are they average? (Scale each area for every construct on this 7 point scale. Note as N/A for those that cannot be scaled at all).

QUESTION FOR GRID 2.
The next question tries to find out the relative importance of these points you have mentioned in the last grid. We are going to ask you about changing imaginary neighbourhoods. Now, look at these two constructs. On the one you preferred ........, on the other you preferred ........ What we are trying to find out here is, if you had to change neighbourhoods, which of these two preferences would you not like to change at all. If you had to change your neighbourhood, would you prefer a change in which (preferred side of construct 1) was present, or would you prefer a change in which (preferred side of construct 2) was present. Which preference would you rather have stay the same?
(Mark X in construct column if it is to remain the same. If change is equally undesirable in both pairs mark column with e. If to make a change is logically impossible, i.e. if a change in one automatically implies a change in the other, mark with an I.
Complete Grid 2 comparing 1 with all the constructs, then 2 with all the constructs - ignoring 1 - and so on until the grid is completed. Construct 7 for example, will then only be compared with construct 8).
### GRID 1.

<table>
<thead>
<tr>
<th></th>
<th>FINGO</th>
<th>SILVERTOWN</th>
<th>JOZA</th>
<th>OLD CEMETERY</th>
<th>MISSION</th>
<th>NEW Cottages</th>
<th>TANCHIYI</th>
<th>NEW TOWN</th>
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*Resistance-to-change scores*

*Rank Orders*
APPENDIX E

COMPUTER PROGRAMS PRODUCING THE
ASSOCIATION MATRIX
AND
RESISTANCE-TO-CHANGE MATRIX
LIST
PROGRAM ASMX
COMMpress INTEGER AND LOGICAL
COMMON DATA
INPUT S = CR
OUTPUT A = LPU
END
MASTER ASMX

INTEGER BUFFER(40)
REAL MAT(48,48), MATJJ, MATKK

READ (5,5000) NCASE, NCON, MISS, IL, IU
FORMAT (5IO)
DO 50 I = 1, NCASE
READ (5,5010) INCOME, BUFFER
FORMAT (16X,11,3X,48I1)
IF (INCOME.LT.IL.OR.INCOME.GT.IU) GO TO 50
DO 40 J = 1, NCON
IF (BUFFER(J).EQ.MISS) GO TO 50
DO 20 K = 1, NCON
IF (BUFFER(K).EQ.MISS) GO TO 10
MAT(J,K) = MAT(J,K)+1.0

CONTINUE
CONTINUE
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DO 70 J = 1, NCON
MATJJ = MAT(J,J)
IF (MATJJ.GT.70,70) U
DO 60 K = 1, NCON
MATKK = MAT(K,K)
IF (MATKK.EQ.0.0.OR.J.EQ.K) GO TO 60
MAT(J,K) = MAT(J,K)/SQRT(MATJJ*MATKK)

CONTINUE
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DO 80 J = 1, NCON
MAT(J,J) = 1.0
WRITE (6, 6000) ('MAT(J,J), J = 1,NCON)
FORMAT (1H, 8F10.7)
CONTINUE
STOP OK
END
FINISH
0001 LIST
0002 PROGRAM (REV4)
0003 COMPLEX INTEGER AND LOGICAL
0004 COMPACT DATA
0005 INPUT S = \texttt{CRF}
0006 OUTPUT K = \texttt{LPH}
0007 END
0008 MASTER REV4
0009 C
0010 C
0011 C
0012 C
0013 \texttt{INTEGER BUFFER(40),MAT(48,48),MATR(48,48)}
0014 C
0015 C
0016 \texttt{READ (6,500)} NCASE, NCON, MISS, IL, IU
0017 \texttt{FORMAT (510)}
0018 DO 50 I = 1, NCASE
0019 DO 70 J = 1, NCON
0020 \texttt{IF (INCOME.LT.IL,OK.INCOME.GT.IU) GO TO 50}
0021 \texttt{DO 20 K = 1, NCON}
0022 \texttt{IF (BUFFER(J),EQ,MISS) GO TO 50}
0023 \texttt{MATR(J,K) = MATR(J,K) + BUFFER(K)}
0024 \texttt{CONTINUE}
0025 \texttt{CONTINUE}
0026 \texttt{CONTINUE}
0027 \texttt{CONTINUE}
0028 \texttt{CONTINUE}
0029 \texttt{CONTINUE}
0030 \texttt{WRITE (6,6001)} \texttt{(MATR(J,K),J = 24, K = 48)}
0031 \texttt{FORMAT (91X,11,3Y,4811)}
0032 \texttt{DO 60 J = 1, NCON}
0033 \texttt{IF (MATR(J,K),NE,0)}
0034 \texttt{MATR(J,K) = MATR(J,K) + MATR(J,K) / 2 / MATR(J,K)}
0035 \texttt{CONTINUE}
0036 \texttt{CONTINUE}
0037 \texttt{CONTINUE}
0038 \texttt{WRITE (6,6002)} \texttt{(MATR(J,K),J = 24, K = 48)}
0039 \texttt{FORMAT (1H1,/,4R(1H,2414/,1H1,/,48(1H,2414/))}
0040 \texttt{STOP OK}
0041 \texttt{FINISH}
REFERENCES FOR APPENDICES


