EVALUATION   AND   RESPONSE   TO

ENVIRONMENTAL   CHANGE

by

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ABSTRACT

This paper proposes an approach for research
into environmental change. It is argued that research
should take into account the subjective level of a person's
experience in order to gain an understanding of the human
consequences of change. Two methods of investigating
subjective interpretations and evaluations of environmental
change are discussed: phenomenological description and
personal construct theory. However, it is contended that
analysis of behavioural responses to change requires con-
sideration of group processes and conditions operating
independently of any one individual. In this regard, the
problems and constraints associated with collective
actions to protest environmental decisions are examined.
The proposed approach thus attempts to link the micro-
situation of the individual with the aggregate processes
of environmental change.

ACKNOWLEDGEMENTS

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CHAPTER I

INTRODUCTION

In this paper, a research orientation for the analysis

of environmental change will be proposed. The approach rests

upon an integration of ideas from two sources: phenomenology

and sociological conflict theory. Both of these have received

increasing attention in recent years within the social sciences,

and others have argued for their synthesis (Bailey, 1975). A

combined perspective is seen to be necessary in the investigation

of environmental change, because at one level alterations in

the environment have personal consequences for the people involved,

while at another, planned environmental change is a social process

determining 'who gets what, and where'.

Recognition that certain groups in society benefit and

others lose as a result of planned action, has led to consider-

ation of the distributional effects of policy decisions, and to

the issue of social justice (Harvey, 1973). The role of various

groups in the manipulation of urban space has been de-mystified,

making clear their potential to influence the patterns and processes

of urban areas (Cox, 1973; Gale and Moore, 1975). At the same

time, protest activities by groups of residents and users of

particular environments have shown that some members of the

previously planned-for public are also attempting to politically exert control over their surroundings (Wolpert, Mumphrey and Seley, 1972; Ley, 1974a). Within the academic world, debate over questions of social justice, public participation and advocacy planning reflects a reaction to the traditional avoidance of values by social scientists (Buttimer, 1974), and to the discomforting suspicion that much research is supportive of the status quo.

The conceptualisation of environmental change as a social process involving various power groups is based on the sociological model of conflict (Dahrendorf, 1959). This theoretical position has been adopted by some social scientists in the search for the underlying forces of urbanism (Castells, 1972; Pickvance, 1975). Conflict is seen to be latent in any social system where differences in power, authority or other forms of advantage such as locational benefits accrue to some individuals and groups rather than others (Seley, 1974). From this viewpoint, the city is regarded as a mechanism distributing real income or the social surplus, and the changing pattern or resource allocation as a source of conflict in the urban environment (Harvey, 1973). Conflict can occur over both the quantitative and the qualitative nature of the distribution of resources. Williams (1971), for example, conceptualises environmental change in terms of the alteration of urban 'access' patterns. Needless to say, the process of environmental change and its impact on individual and community life, through to urban social and spatial structure is a complex phenomenon.

By directing attention to the organisation and structure of society, the conflict approach emphasises the influence of social structures and institutions on people's experience of the environment (Roche, 1973). A person's wants and needs, eg. in regard to housing (Harvey, 1972), are closely related to social norms and expectations, whilst the satisfaction of these is in turn, largely dependent upon the range of choice made available by the production system of a society. In addition, individual and group courses of action to achieve desired values and goals are socially and institutionally defined and constrained. In this context, the phenomenon of alienation, which has long been a topic for Marxist analysis of the effect of politico-economic structures on individual experience, will be discussed in this paper.

Phenomenology specifically focuses on the content and structure of people's experience of their environments. Central to this approach is a concern for the existential quality of space, and the meanings that people ascribe to their environment (Mercer and Powell, 1972). The effect of physical form on people's meanings and intentions change, so does their behaviour in any particular environment. When changes occur in the physical environments, this can cause disruptions in an individual's lived-world and associated personal meanings. At this level, environmental change is a subjective experience.

SCOPE OF THE PAPER

In general terms, this paper will outline an approach
for the analysis of people's evaluation and behavioural
responses to change in their residential environment. Certain
aspects of this broad topic will be addressed rather than a
comprehensive statement of all the related issues. Change as
both a subjective experience and as a group process will be
emphasised. People's evaluation of alterations in their surround-
ings will be discussed at the subjective level, suggesting the
potential of a phenomenological approach. On the other hand,
analysis of the behavioural responses to change necessitates con-
sideration of the formation and activities of groups in reaction
to planning decisions.

The environment is more than simply a medium in which
behaviour occurs, rather it is a variable which has an effect
of its own (Michelson, 1970). The relationship between people
and their environment will be discussed in Chapter 2, drawing
on concepts from phenomenology. It will be argued that environ-
mental perception and cognition, and ultimately evaluation are
intimately related to the meaning that people attach to their
lived-worlds. Discussion will consequently revolve around the
issue of environmental meaning and the experiential reality of
residential areas, in order to permit an understanding of a
person's evaluation of environmental change.

Recent research into people's evaluation of different
environments has been based on Kelly's (1955) theory of personal

constructs. In particular, the concept of cognitive constructs
and their organisation has been used in attempts to measure
aspects of environmental meaning (Donnelly and Menzies, 1973).
This approach will be reviewed in Chapter 3, and it will be
argued that this theory and methodology is a valuable complement
to phenomenological analysis. Cognitive theory also postulates
a motivational principle referring to an individual's need to
extend his or her control over the environment through the
development and elaboration of mental constructs. This subjec-
tive sense of control over one's surroundings, or personal
efficacy, is proposed as a critical component in a person's
response to environmental change.

A previous study has identified the range of choice
strategies available to individuals and communities in response
to changes in their residential environment (Long, 1975).
Developing upon this, and recognising that the responses to
environmental change cannot be viewed wholly as a purely sub-
jective phenomenon, the problems and constraints accompanying
the collective use of protest activity to control changes in
the environment will be discussed in Chapter 4. Conflict theory
asserts that the constraints on such group activity are attrib-
utable to the unequal distribution of power between groups in
society, and to the limiting effect of political and economic
structures on the individual's exercise of his or her control.
The structural variable of power is seen to be the most
important factor determining the course and outcome of conflict
over environmental decisions. In addition, the phenomenon of

alienation will be discussed as an example of the impact of societal structures on an individual's experience and behaviour. The feeling of powerlessness or inefficacy is viewed as an important and widespread psychological barrier to the effect- ive participation of people in decisions affecting their environments.

Clearly, there are a number of approaches that can be adopted in the investigation of social phenomena. In this paper, it is argued that research into environmental change must take into account both personal and group aspects of environmental change. It is also the case that the particular perspective taken will generate its own questions and in the final analysis, its own insights and answers about reality. Naturally, this applies to the approach to environmental change proposed in this paper.

CHAPTER   II

ENVIRONMENTAL   MEANING

The aim of this chapter is to extend and explore the
notion of the residential environment beyond that of simply
a place where people live. Such a view is held to be limiting,
particularly in regard to allowing a comprehensive understanding
of the impact of environmental change. Whenever we speak about
the environment, we are referring not only to the physical
form but also to people's beliefs and intentions, hopes and
fears that are associated with it. Change in the built-
environment has both physical and human consequences.

For an understanding of the human consequences of
change, the theoretical framework of phenomenology will be
outlined. This approach emphasises the concepts of 'meaning'
and 'intention', and is seen to be of value in this analysis
for several reasons. Firstly, it satisfies the pressing need
of social science theory and practice for a viable philosophical
view of the individual, and his or her relationship to the
environment. It further leads to a focusing on the experiential
and symbolic nature of the environment, aspects which it is
contended, should not be overlooked in the analysis of environ-
mental change. Whilst there are a number of varying approaches
subsumed within the phenomenological rubric (Deutscher, 1972),

and almost inevitably some queries of an epistemological nature
(Gorman, 1975), I will tread somewhat lightly around these
for my purposes here.

PHILOSOPHICAL BACKGROUND

Phenomenology takes as its frame of reference the
'lived' world that each of us experiences in our everyday
life. The individual is regarded not as a 'thing' like many
other objects in the world, nor as an autonomous entity
divorced from the environment, but rather to be a person means
to live in a world. It is this fundamental characteristic of
human existence that the term 'lived' world is intended to
convey; and this world is viewed as a reality that is ordered
and gives sense, or meaning, to life (Berger, 1973). While on
one level the individual is an organism with needs, drives
and responses, at the level phenomenology is directed, he or
she is an inhabitant and creator of a symbolic world in which
the existence of language and symbols enable the person to
attach meanings to, and interpret the surrounding environment.
It is this symbolic world of meanings that distinguishes
people from the non-human world.

The relationship of an individual to the environment
is viewed as a dialectic between objective and subjective
reality, i.e. as being constituted by the reciprocal inter-
action of what is experienced as outside, and what is exper-
ienced as being within the mind of an individual. Meanings
thus do not wholly reside within either the environment or a

person's mind, but arise out of the person's experience and perception of the surrounding world. Accordingly, the environment can only be understood in terms of an individual's intentions and attitudes towards it (Mercer and Powell, 1972). A person's perception and interpretation however, depends upon the cognitive constructs used to organise information from the environment, and the nature of these constructs is in turn largely dependent on the particular social and economic groups to which a person belongs. The individual is thus seen as functioning in the environment as a unique actor, but thinking in typically familiar patterns and acting in typically familiar ways (Gorman, 1975, 399).

This conceptualisation of reality as being socially constructed can be understood through the processes of externalisation, objectivation and internalisation (Berger and Luckman, 1967). Human existence is a continuing externalisation, and nowhere else is this more evident on such a scale, than in the creation and construction of cities. In this process, subjective meanings are projected into reality and become objectified to other people. Much of the built-environment, for example, is a legacy of history and the previously associated subjective meanings have been translated into, and experienced as, objective realities. The attitudes, beliefs and values associated with the external environment are internalised during the process of socialisation, and consequently the physical surroundings are interpreted as expressing meaning.

It is this set of meanings that guide an individual's

transactions with the environment in the events and encounters of day-to-day life, and the totality of the shared meanings comprise a particular 'life' world. In effect, these meanings are reality definitions, so that whatever people experience as real in a situation is the result of such definitions (Berger, 1973). A distinction can be drawn between an individual's cognitive and normative definitions of the environment, the latter referring to a person's expectations of the future state of the environment. It will be argued in a subsequent chapter that this difference between the cognition and evaluation of what is and what could be is of critical importance in an individual's response to environmental change.

The human characteristic of language is of particular significance to the phenomenological position, for it is through the use of language that subjective experience becomes objectified, and individual meanings articulated and shared. Language is the foundation and the instrumentality for our construction of the world. Olsson (1975) discusses the difficulties that the inherent logic, or deep structure of our language imposes upon us, a problem that is too vast to be explored here. Suffice it to say, that our minds have been moulded by the conventions of language and social institutions which are the very objects of our thinking.

Derived from the Hegelian idea of 'becoming' is the phenomenological assertion that change is the normal state of affairs in a person's life. Whilst it is assumed that people act towards each other and the environment on the basis of

interpreted meanings, the approach stresses that these meanings are constantly being modified and re-constructed through experience. The concept of 'perspective' refers to the changes in meaning that accompany the different viewpoints that an individual can adopt, and phenomenologists argue that only by recognising and accepting these different perspectives is it possible to understand problems and situations from the frame of reference of those involved. The validity of the 'verstehen' method has long been a topic for academic debate, and involves a veritable hornet's nest of philosophical imponderables, (Rudner, 1966; Outhwaite, 1975).

The contribution of the preceding philosophical ideas to this analysis of environmental change is seen to be in the emphasis placed on the meaningful nature of the environment, and on space as lived and experienced. The environment has a symbolic function, and it is this aspect that is essentially human .

ENVIRONMENTAL MEANING

Recognition that lived space is personal and has unique meaning for the individual is evident in the studies of personal space, territoriality and proxemics (Hall, 1966; Sommer 1969). The environment as experienced by an individual is comprised of sub-spaces of personal significance (Beck, 1970). Piaget (1952) and others have shown that as children learn to structure space and form spatial relations, innumerable spatial connotations develop. As such meaning is acquired, it channels a person's

cognitive structuring of his or her experiences and impressions of the environment.

Environmental meaning is derived from the satisfaction of human needs. The interactions between an individual and the environment are commonly seen to have either functional and/or symbolic meanings. This division can be further developed by considering the properties or values that objects in the environment typically have attributed to them. Functional meaning refers to the use and exchange properties of objects, whilst symbolic meaning involves the consideration of sign values (eg. social status) and symbolic value (eg. personal attachment). Variations in spatial meaning can occur due to the differential combination and weighting of these properties both between people, and for any one individual over time. Michelson (1970) documents the differing value placed on housing space by various life style, life cycle and social class groups, each of which corresponds to a different perspective on the residential environment.

The interpretation of the term 'meaning' is not a straightforward procedure. In addition to the functional/symbolic division, a distinction can be made between denotative (or referential) and connotative (or emotional) meaning. This division is similar but not identical to the former, since both use value and exchange value have very strong connotative elements. Indeed, the confusion accompanying the use of the label 'meaning' may be seen as a reflection of the consistently inconsistent nature of the phenomenon itself (Olsson, 1975, 19).

For the individual, spatial meanings are not solely unique in character. Clearly, for society to operate there must be considerable consensus or shared meaning in regard to spatial form, particularly with denotative and functional aspects. Since individuals in any society possess a more or less common set of concepts, those of language and culture, and many experiences are shared with others, eg. in the neighbourhood, or social class groups, many individual meanings are shared by members of various groups. A scale, or hierarchy of spatial meanings can be envisaged, ranging from the individual through to entire societies. The urban environments may be viewed as a complex related set of symbolised areas, with various parts of the city having different meanings attached to them by both individuals and groups (Strauss, 1968).

Tuan (1973) has argued that the urban environment is meaningful to its inhabitants at two levels: at one extreme it is an overall symbol or image to which a person can orient him or herself, whilst at the other it is the intimately experienced neighbourhood over which people feel they have control. This issue of control will be examined in following chapters. In light of the phenomenological emphasis on meaning described above, some notions of the symbolic function of the residential environment will now be discussed.

SYMBOLISM AND THE RESIDENTIAL ENVIRONMENT

Unfortunately, we remain largely ignorant of the quality and range of people's experience of different types of environment. Studies following the work of Lynch (1960) have focused almost entirely on the physical aspects of the urban environment, or its imageability, at the neglect of considerations of environmental needs, meaning and experience. Harrison and Howard (1972) in a cognitive mapping approach to the study of meaning argue that most urban residents are insensitive to their environment, lacking strong personal attachments to particular places. However, this finding may be more of a commentary on their research design than on the significance of environmental meaning. Apart from the confusion surrounding what mental map studies are actually measuring, there is also the strong suspicion that personal meanings may to a large extent be unmappable.

Some research has explicitly investigated environmental meaning. Tuan (1973), for example, discusses the historical development of cities as symbols of: the order of the cosmos, the ideology of the ruling class, and the existing modes of production and consumption. At a more disaggregated scale, Lynch (1972) has examined the perception and experience of environmental time-cues from street level in downtown Boston. Similar research attempting to capture the content and structure of the lived worlds of inner city residents, has been undertaken by Suttles (1968), Gans (1962) and Ley (1974b). Suttles

for example, suggests that the agreed-upon territorial bound-
aries of neighbourhoods symbolically delineate areas in which
patterns of social control are maintained by different ethnic
groups. There is a need for further research into the
experiential nature of different residential environments.
Some speculative notions are proposed below.

The individual in modern society is typically conscious
of the distinction between his or her private life and the
public instituions to which each of us relates in a variety
of roles. From the private space of the residential environ-
ments, a person ventures into, and returns from an increasingly
pluralistic public world. Chermayeff and Alexander (1965, 121)
classify the public-private space spectrum into six different
categories of group/public and family/private spaces. Private
space is an environment which permits a person to express
features of subjective identity that are otherwise lost in
wider technological and bureaucratic society. The residential
environment in this sense permits an expression of self (Cooper,
1971). Studies of the forced re-location of people in urban
renewal schemes, for example, have indicated the psychic and
social deprivation of residents who had a strong sense of
identity and attachment to their locale (Fried and Gleicher,
1961; Fried, 1963). The residential environment can thus
provide an order of personal and socially integrative meanings,
such as the "quest for community" (Hunter, 1975).

The concept of life-planning also relates to personal

identity and the subjective meanings associated with the
residential environment. Life-planning encompasses such
factors as the financial security of the individual and his or
her family, the maintenance and development of personal
relationships, and the raising of children. These plans serve
as reality definitions giving meaning to life as a whole
(Berger, 1973). On the one hand, life plans involve a trans-
cendence of the immediate social and spatial situation of the
individual, but on the other, they are embedded within an
individual's day-to-day experience of his or her surroundings.
At this level of lived experience, the residential environment
is more than the spatial means to a person's life goals; rather,
it can facilitate or restrict the fulfillment of these personal
objectives.

By emphasising these deeper, symbolic aspects of
individual-environment relations, the phenomenological approach
allows for a more comprehensive understanding of environmental
change as a subjective experience with personal consequences
for the individuals affected. Alterations in the physical
environment are at the same time changes in the lived-worlds
of people.

CHAPTER   III

CONSTRUCTS,   CONTROL   AND   CHANGE

        Most recent research into environmental meaning has

been of a quantitative analytic form based on psychological

principles of cognition and evaluation. The environment is

defined in terms of learned bundles of meanings, or constructs,

and investigation is concerned with the dimensions of these

bundles. The notion that a person's environmental knowledge

is packaged into concepts, constructs or schemata is not new

(Bruner, 1956; Neisser 1967), and it is the relating of human

behaviour to the ways in which people discriminate and categ-

orise their environment, that distinguishes the cognitive

approach in psychology. A review of Kelly's (1955) Personal

Construct Theory will comprise the first section of this

chapter, a theory which proposes the idea of the individual

imposing his or her personally developed constructs on objects

and events in the world.

        Personal Construct Theory emphasises the fundamental

need of the individual for control over the environment, with

this being the purpose and function of a person's system of

cognitive constructs. Kelly's theory shares with the phenomen-

ologists the view of the individual as a potentially active
creator of the environment. The concepts of 'personal constructs'
and 'control' are proposed as being of value in the analysis of
environmental change, for this process can cause alterations
in a person's cognitive definition and evaluation of the
environment, that ultimately may result in a range of individual
and community behavioural responses.

PERSONAL CONSTRUCTS

Personal Construct Theory has been adopted as an
appropriate organising framework for the central concerns of
environmental perception and cognition. The theory, or per-
haps more correctly its associated methodology, has been
applied in the study of urban imagery (Harrison and Sarre,
1971), in transportation-related research (Burnett, 1974),
in housing and neighbourhood evaluation (Harman, 1974; Tuite,
1974), and in the assessment of the impact of public facility
location (Gingell, 1975). The range of its applicability
speaks for the fertility of the theory, but also for the
overly enthusiastic haste with which it has been embraced as
a measurement device, through the use of the Repertory Grid
technique. Succinct outlines of the theory can be found in
Bannister and Fransella (1971) and Bannister and Mair (1968);
attention here is given to the nature of personal constructs,
and their organisation.

The theory has as its basis, a view of the world as

existing according to peoples interpretation of it. Regard-
ing the individual as having to make sense of the world
through the process of construing and re-construing, is akin
to the phenomenological position on the nature of reality.
Other similarities between the two approaches are apparent,
particularly in the emphasis placed on the individual's unique
structuring of the world, and in the importance attached to
human experience. By employing the analogy of man-the-scientist,
Kelly stresses that the individual is striving for personal
meaning by attempting to make sense out of the environment.

Kelly formulated a fundamental postulate and a set of
corollaries to explain how people construct their own inter-
pretation of reality, how that construction is subject to change,
and how people share experience and interact socially. The
basic unit of analysis is the personal construct. Constructs
are interpretations imposed upon events or objects in the
environment that enable a person to anticipate what is likely
to happen, and thus they embrace the future rather than merely
catalogue the past (Kelly, 1955, 321).

In construing the environment, a person focusses
on the replicability of events and objects. Replications are
derived from the ability to construe important similarities,
and this carries with it the capacity to anticipate and predict.
As events subject a person's anticipations to a validational
process, constructs undergo progressive changes and develop-
ment in the light of experiential evidence. Also, to the extent

that one person employs a construction of experience similar
to that of another person, Kelly argued their processes are
psychologically similar.

A construct is defined and revealed through the
pattern of choices and discriminations a person makes among
elements in the environment (Downs, 1974, 24), and this forms
the basis of the Repertory Grid technique used for construct
elicitation. Constructs are assumed to be bi-polar discrimin-
ations, not necessarily capable of verbal expression. They are
not intended to be used to discriminate between all possible
elements, but rather each construct has a focus and range of
convenience, i.e. objects and events in the environment with
which they are associated. Thus, implicit to a construct are
the ideas of similarity, contrast and irrelevancy.

Constructs do not exist in isolation, and it is through
their interrelations that predictions are made. Kelly argued
for a system of cognitive constructs structured in a series of
ordinal relationships. He thus envisaged meanings as being
organised in an hierarchical manner, with superordinate con-
structs subsuming and being more resistant to change, than lower
order or sub-ordinate constructs. The more constructs which
a person can bring to bear upon a given event, the clearer
and more distinct its meaning is assumed to be within the con-
text of a person's cognitive structure.

Kelly specified three types of relationships which
exist between constructs in a sub-system. Pre-emptive constructs

are very exclusive, typical of a 'nothing-but' interpretation.
Constellatory constructs limit the number of alternative con-
structions, and can be characterised as thinking in stereo-
types eg. the statement, if this place is a slum, it _must_ be
crowded, dilapidated and unsafe. Propositional constructs
allow for interpretations of an 'as if' type, and thus for a
wider range of meanings eg. the statement, if this place is a
slum, it may be a bad environment for raising children, _or_ a
close-knit community, _or_ ethnically varied. Sub-systems
exist within a person's cognitive structure to the extent
that clusters of constructs have high internal interrelation-
ships and relatively few linkages to other sub-systems
(Bannister and Fransella, 1971, 162). The network of ordinal
relationships between constructs may be investigated through the
use of the implications grid and the laddering technique
developed by Hinkle (1965).

In Personal Construct Theory, cognition and evaluation
are not considered as separate mental processes. The constructs
an individual uses to identify elements in the environment are
assumed to be the same dimensions by which he or she evaluates
these stimuli. Research aimed at identifying the relevant
constructs used by people to evaluate particular environmental
changes can thus profitably proceed from the theory and method-
ology of Kelly's work.

Using alternative planning proposals as elements,
Stringer (1976) has applied the repertory grid technique in

a study of people's evaluation of different planned environ-
mental changes. This enabled the content and structure of
people's evaluation to be investigated according to their con-
struction of the planning proposals, rather than in terms of
the constructs of planners. Through the use of principal
components analysis, elicited constructs with high loadings
on the same dimension as that on which the people's preference
rating also had its highest loading, were used to define a
domain of meaning for the preference. In other words, the
loading of the elicited constructs was used as the basis for
preference structure.

In a similar manner, Gingell et al (1975) investigated
the constructs people used to differentiate and evaluate the
locational impact of various public facilities, together with
the relationship between these constructs and accessibility
preferences. It was found that people evaluate the locational
impact of public facilities on the basis of the noxiousness
and level of noise they associate with particular facilities.
A set of constructs were identified which comprise these two
main dimensions. Of most importance were the constructs
'impact on property values' and 'amount of noise generated',
both of which are fairly concrete means of measurement for the
individual, and ones not requiring a great deal of thought.
Analysis of accessibility preferences and constructs indicated
that three groups of facilities can be discerned:

1)   facilities viewed as non-noxious and desirable, even

if located very close to the place of residence eg. park and library;

2) facilities for which it was desirable to have access, but not at close proximity eg. hospital, fire station and police station;

3) facilities viewed as noxious, noise-generating and undesirable at any close distance to the residence eg. major highway, sewage plant and public housing.

The type of facility and proximity to its location were thus found to be factors influencing an individual's evaluation of urban public facility location decisions. However, this type of approach assumes that the constructs relevant to an individual's evaluation of the elements have been identified, and further, that the set of constructs administered to groups of people are characteristic of their individual processes of construing. The relationship between personal and group constructs is clearly a major issue in this approach.

Phenomenological analysis and the application of Personal Construct Theory provide two methods for the study of environmental meaning and people's evaluation of change. It is argued that these should properly be regarded as complementary research strategies. Personal constructs uncovered by phenomenological description, for example, could later be used in the repertory grid technique and subsequent scaling. The cognitive construct approach has value in identifying the use, exchange and social status dimensions of meaning; these dim-

ensions having been outlined in Chapter 2. In addition to the typical problems of artificiality surrounding interview sit- uations and social surveys, the procedures of construct elicitation and laddering are both time-consuming and demanding techniques (Burnett, 1974), factors which may work against the uncovering of deeper and symbolic personal meanings.

As originally intended by Kelly, construct elicitation techniques were a form of encounter or dialogue between a person and psychologist in a clinical setting. This significant aspect of personal construct theory has been overlooked in its application to environmental issues. Investigation of more personal and symbolic relations of a person to his or her environment may be less amenable to the traditional practice of social surveys, requiring instead such phenomenologically inspired methods as participant observation (see Suttles, 1968). These too are not without problems, particularly in regard to the ability of a researcher to fully adopt the frame of refer- ence of the people being studied, either because he or she is an 'outsider', or due to the researcher's own mental categories with which he or she approaches and interprets the situation.

CONTROL

According to Kelly, people are actively involved in the process of construing and re-construing their environment, and thereby trying to anticipate events so that they can make decisions about appropriate behaviour. He asserts: 'suppose

we began by assuming that the fundamental thing about life is that it goes on; the going on is the thing itself. It isn't that motives make a man come alert and do things; his alertness is an aspect of his very being' (Bannister and Fransella, 1971, 19).

This assertion of the active and exploratory nature of people stands in contrast to classical statements of motivation which relied heavily upon the concept of 'drive'. Physiological need was conceived of as the source of drive, and behaviour which led to drive-reduction was postulated to be reinforcing. However, attempts to explain human motivation solely in terms of a defined set of basic drives (hunger, thirst, sex, pain avoidance, etc) were clearly incomplete: "boredom, unpleasantness of monotony, the tendency to vary behaviour rather than repeating it rigidly, seeking of stimulation and mild excitement, stand as inescapable facts of human experience" (White, 1959, 315). When a person's physical needs are satisfied, other needs exert a powerful influence on behaviour. This is acknowledged in Maslow's (1953) hierarchy of motives, in which the satisfaction of lower needs makes it possible for higher needs to assume importance in directing behaviour. The implicit motivational principle in Personal Construct Theory is one referring to the individual's cognitive need for control over his or her environment.

Bruner (1970) regards the purpose of construing the environment to be one of minimising the disruptive influences

the external world can have on the lives of people. Other
cognitive theorists also stress the individual's efforts 'to
know', 'to recognise', and to maintain and elaborate upon the
integrity and usefulness of cognitive structures (Mancuso,
1970). The essential issue highlighted by these motivational
statements is the fundamental need of the individual for
control.

White's (1959) proposal of 'effectance' motivation
more explicitly emphasises the individual's quest for efficacy,
for a sense of personal control over the immediate environment
and one's own personal fate. A person's interaction with the
environment is thus seen to involve the need to find out how
the environment can be changed, and the consequences of these
changes. Effectance motivation is characterised as being
moderate, persistent and active for the feeling of efficacy
it gives a person, rather than for the incidental learning
that occurs as its result.

Motivation based on the need for control should be seen
as complementary to the satisfaction of primary needs. When
a person is highly motivated to satisfy the latter, it is
most likely that effectance motivation will assume a secondary
role in guiding behaviour. Similarly, it is possible to
envisage a person's emotions overriding the concern for cog-
nitive control. Clearly, to maintain that a person's behaviour
is always guided by the need for personal efficacy would be
an overstatement of the cognitive perspective; to ignore it

on the other hand, amounts to an unwarranted neglect of this fundamental human need.

Ley (1975) has argued that suppression of personal efficacy is characteristic of the experiential reality of inner city life, and that the absence of such control is partly responsible for the failure of even well-intentioned programs of environmental improvement. The issue of control is a critical component in a person's, and a community's, response to environmental change. Underlying both participation in, and alienation from the planning process of change is the expression (or the lack of it) of the desire for control. This is most clearly illustrated in the work of Goodman (1971), who discusses the role of direct action by residents, eg. squatting, sit-ins and 'guerilla architecture', to counter feelings of hopelessness in poor neighbourhoods. Such actions can be seen as attempts by residents to assert control over their surroundings outside of the established political framework governing environmental change.

ANALYSIS OF ENVIRONMENTAL CHANGE

Any comprehensive analysis of environmental change must at some time address a number of features that generally characterise the processes of urban change. Specifically, attention must be given to:

1) The nature of the change in the environment, since this can take a multitude of forms eg. zoning law changes,

neighbourhood deterioration, natural and man-made hazards, and public facility locations. Different changes, and also the same change are most likely to be perceived and evaluated in various ways by the people involved, especially as a result of the scale of the change;

2) The characteristics of the people involved or affected by the change: their resources, values and aspirations, and their beliefs concerning available courses of action to encourage or resist the change;

3) The political context within which the change is proposed or occurs, since this effectively determines which individuals and groups can exercise control over the situation;

4) The strategies that can be pursued by those involved with the change. The range of behavioural responses that can be followed either directly or indirectly influence the course and outcome of the process of urban change;

5) The impact of the change, in both physical and human terms. For example, the gains and losses relating to the immediate issue, and also the precedents established in the resolution of conflict situations.

Obviously, this is a broad field of enquiry and specific research projects may encompass different foci. The position adopted in this paper places emphasis on the evaluation of environmental change in terms of its effect on a person's cognitive definition, or meaning, that he or she ascribes to the residential environment. Following this line of argument,

environmental impact can be conceptualised in terms of the changes that occur in people's definition of their environment, and resultant alterations in their behaviour. Personal Construct Theory and the phenomenological method have been advanced as complementary research orientations for this type of analysis of environmental change.

The evaluation of environmental change by a person involves the subjective comparison of 'what is' and 'what could be'. The concept of relative deprivation has been used to refer to the felt or experienced disparity between a person's aspirations or expectations, and reality, (Runciman, 1966; Gurr, 1970). It is a te m that is descriptive of a person's interpretation of his or her situation, and of the meaning he or she endows to the social circumstances surrounding environmental changes. Expectations of 'what should be' vary with an individual's life cycle, life style and socio-economic position, and are assumed to be affected by a person's reference groups in society. Michelson (1973) for example, found that people assign high importance to residential characteristics that they do not have in their present location. Although the concept has intuitive appeal, it is only partially explanatory, for the question still remains as to how reference groups, values and social norms exert an influence on people's behaviour. As Brittan (1975) points out, the unquestioning use of the concept of relative deprivation involves the danger of postulating "the self" to be nothing but "the generalised other."

Although a number of people may feel similarly deprived in their evaluation of a changing environment, it may be for very differing reasons which are dependent upon each person's perceptions, aspirations and objectives. A certain level of deprivation may be varyingly defined from person to person. The concept refers to subjective experience, and thus it is a mistake to only consider the objective circumstances of social groups, and our interpretation of their reality, as the basis from which to infer the existence and reasons for relative deprivation (Wallis, 1975).

It is this point of investigating people's perceptions and evaluations of situations from the frame of reference of those involved that has been the theme in preceding chapters. This position is fundamental to phenomenological and personal construct theory approaches. A conceptualisation of a person's evaluation of environmental change has been outlined in terms of the personal meanings, or constructs, that he or she ascribes to the environment. Associated with this viewpoint, is the notion of the individual's basic need for control over his or her surroundings, and it is this aspect of personal efficacy or control that is seen to be important in an individual's response to environmental change.

CHAPTER   IV

RESPONSES   TO   ENVIRONMENTAL   CHANGE

When a person evaluates alterations in the environment

as increasing the disparity between the existing situation

and his or her expectations regarding the future state of the

environment, a range of behavioural responses can be considered

by the individual. Long (1975) identifies these alternatives

as 'exit', 'voice', 'resignation' and 'outlaw activity'. This

classification, however, should not be understood to rule out

the important interrelationships between them. For example,

although a person may choose to exit, this does not necessarily

preclude him or her from voicing opposition to the change from

another location; and exiting may well be a form of resignation

for those whose freedom of residential movement is less con-

strained.

In this chapter, attention will focus on the responses

of 1) the collective use of voice to protest environmental

decisions; and 2) alienation from the decision-making processes

of change in the urban environment. These options are seen to

be two sides of the same coin, the difference in their choice

being based upon the individual's decision of whether or not to

attempt to exercise personal control. It must be noted that in

the analysis of behavioural responses to change, the level of
analysis moves beyond that of the individual to that of groups,
and thus to considerations of conflict and the role of power.
In the following discussion, the sociological model of conflict
is adopted as the basis from which to view the participants
in environmental decisions as various rival power groups.

The proliferation of community opposition groups over
many environmental issues in recent years, and the associated
demands for public participation in planning, have served to
highlight the essentially social and political character of
decisions affecting the use of urban space. In brief, the power
of some groups over others has become increasingly evident in
the manipulation of the urban environment (Gale and Moore, 1975).

A major barrier to the effective political intervention
of groups affected by environmental change, is the widespread
phenomenon of alienation. Although alienation has long been a
research topic for sociologists and political scientists,
particularly in regard to the work setting, its role in the
operation of urban political decisions has been largely overlooked.
It is argued here that this is an unwarranted oversight of the
influence of the structures of society on the experience and
behaviour of people.

This selective focus is not intended to deny the
importance of residential movement as a response to environ-
mental change. As Williams (1971, 35) states 'most urban dwellers
vote by moving van, not by ballot box', and in this manner
exiting is a common urban political act. From this perspective,

research has concentrated on the role of 'stress' in resid-
ential mobility (Clark and Cadwaller, 1973), though the circum-
stances surrounding forced moves resulting from urban expro-
priation schemes have been insufficiently studied (Simmons,
1968). Various constraints operate on the individual's decision
to re-locate, and can lead a person to instead consider one of
the other alternative behaviours. Of prime importance is a
person's wealth, status and information on other locations
together with the discriminatory effects of political barriers
and other facilitating channels, eg. the practices of realtors.
The choice of the exit strategy is seen to result from the
realisation that often it is far less costly to move than to
stay and voice opposition through problematic political mech-
anisms (Williams, 1971). As further indication of the inter-
relationships between the various behavioural responses, the
people who are most likely to exit may be those most able to
contribute to the success of a strategy of voice.

VOICE   AND   CONTROL   OF   THE   ENVIRONMENT

The choice of the voice option involves residents of
an area staying to oppose decisions that are perceived to be
detrimental to their own values and interests. It can be seen
as a more 'messy' option than exit, for the exercise of voice
can be protracted and complex. Whilst voice can be individual-
istic, in the form of writing to newspapers, lobbying local

politicians, signing petitions, and voting, for all but the most influential residents, only some form of collective organisation can hope to successfully enter and be heard in the political arena. The lack of power is clearly a major constraint on the use of voice. This is particularly important since the decision to voice is in most cases based on the expectation of its success.

The viability of the choice to engage in political activity differs among types of people. Orbell and Uno (1972, 473) emphasise the following two factors:

1) The extent to which political resources are distributed in the population of an area, with income and education offering substantial political advantages.

2) Successful protest requires formidable organisation and leadership resources, quite apart from some support in the general population.

The importance of these factors implies the disadvantage of such groups as the poor, the black, the old and the physically or mentally ill. These groups are constrained in their ability to choose both the exit and voice options, and thus resignation to changes in the environment can be a realistic response for them. Assessment of the voice option could well suggest that any action would be futile. However, this realisation may in some cases encourage action counter to prevailing social and political norms, or 'outlaw activity'. Relatively powerless groups can, though, achieve their objectives if protest is used skilfully to enlist support from other groups having

the political resources to assist (Dobell and Uno, 1972, 473).

The choice to co-operate with others in protest activity requires that an individual is aware of similar intentions and objectives of other people. Deutsch (1973) has proposed a set of basic conditions which are necessary for a group to form:

1) Two or more persons must have some interests, goals, and or values in common; and

2) be aware of the interdependence of some of their goals and intentions; and

3) interact with one another; and

4) perceive themselves as forming a distinguishable entity; and

5) pursue their interdependant goals together.
The influence of such factors as spatial proximity, ease of communication, degree of perceived homogeneity of individuals, and face-to-face contact, in group formation have been emphasised (Festinger, 1950). On the other hand, Castells (1972) has criticised much of the literature on this for over-emphasising spatial determinants of social behaviour, and thereby under-playing the role of social, especially class, determinants.

In accordance with the conceptual framework proposed in previous chapters, emphasis should be placed on the nature of the group as a relationship between one person and another, or others (Urry, 1973, 29). This relational view avoids the danger of reifying the concept of groups, i.e. of seeing them

as original givens within society. It also highlights import-
ant aspects of individual-group relations. Interaction betw-
een members of a group can alter an individual's initial eval-
uation and attitudes towards the environmental change. In this
regard, Festinger (1950) conceives of the group as a confirmer
of the reality of a person's cognitive organisation, for the
result of communication between group members can be similar
cognitive structures, information content, and opinions and
attitudes. Further, the existence of a group, whose objectives
are communicated to the wider community, can effect other people's
evaluation of the change, and encourage them to seek participation
within the activities of the group. On the other hand, some
people may choose to 'free-ride' (Olson, 1965), i.e. not to
participate in the collective effort, but at the same time realise
that benefits will accrue to them if the protest action is
successful.

Groups may differ in their cohesiveness, structure and
power. Williams (1971) for example, distinguishes between
coalitions and communities in terms of the strength of the
linkages binding members together. Although both involve joint,
co-ordinated, political activity by group members, in a coalition
members are free to opt out and achieve their goals via individ-
ual actions or by joining alternative coalitions, whereas in a
community, the goals of each member are seen to be inextricably
tied to the goals of the collectivity. Consequently, collective
protest activity can range from loosely organised quasi-groups
whose existence is based on the particular environmental situation

in question, to more formal and enduring groups. Many so-
called community action groups, mobilised around particular
neighbourhood issues, can more appropriately be considered as
coalitions, as often their group identity has developed as a
consequence of their protest activity.

Conflict over the internal relations of a group can
occur. Groups can differ according to the centralisation of
leadership, and over rules of decision-making, the determin-
ation of which may involve some dispute between members of the
collectivity. Obviously, a group will not continue to exist if
its cohesive bands are not strong enough to contain disunifying
influences. For the group to survive, certain maintenance
functions must be upheld: members must share common goals, and
sense self-actualisation in their united action (Ley, 1974a, 81).
A group may however become a rationale for the maintenance of
certain emotional, power and status needs of its members. Ley
(1974a) has termed this phenomenon 'group idolatry'. If such
goal displacement occurs, it may further reduce the likelihood
of the success of the voice strategy.

These problems indicate the difficulties and constraints
associated with the collective use of voice. Another, more funda-
mental limitation on the successful outcome of protest action
concerns the degree of power a group opposing certain environ-
mental changes can exert in the wider context of urban decision-
making structures. The element of power is determined by both
the resources of participants, and by the given situation
(Bachrach and Baratz, 1970). Underlying the formation of groups

to protest changes, is the realisation by members that their
individual power is increased through the combination of their
resources into a collective effort. The group's degree of power
vis-a-vis other groups involved in the creation and change of the
built-environment is the most basic factor determining the
course and outcome of decisions concerning environmental change.

Pahl (1970) views the construction of the built-environ-
ment as the result of conflicts, in the past and present, between
those with different degrees of power in society: landowners,
developers, realtors, planners, insurance companies and other
pressure groups. These groups are referred to as 'social gate-
keepers', for they control the actual distribution of urban
resources, and also set the bureaucratic rules and procedures
of allocation. In this regard, Harvey and Chaterjee (1974)
examine the role of political and financial institutions in the
supply of housing. They outline relations between these bodies
by means of which general policies and housing programs are
transmitted to the local level; so as to spatially structure the
environment in which different income groups can choose housing.
It is within this context or political reality that protest
groups and efforts at public participation in planning have to
operate.

Consideration of the relative power of various groups
is not a straightforward procedure, for the correlates of power
can assert themselves in a number of subtle ways. For example,
more powerful groups can employ 'purposeful ambiguity' by being
deliberately vague in the distribution of information, a strategy

which effectively stalls protest activity (Seley and Wolpert,

1974). Key members of opposition groups may also be 'co-opted'

by other collective interests through direct pay-offs or more

subtle educational means to weaken protest, (Ley, 1974a).

Bachrach and Baratz (1970) have discussed the 'mobilisation of

bias' that powerful interests can use to block attempts to raise

issues in the political arena. Each of these is a valuable

organising concept for research into the distribution and use of

power in environmental decision-making.

From the conflict perspective, which highlights the role

of power, community protest groups and public participation

schemes can be seen as signalling shifts of interest in the

definition and solution of environmental problems. Such efforts,

represent challenges by some members of the public for the author-

ity and control to plan. Whilst public input into decision-

making has been interpreted in a wide variety of ways by different

groups, (see Arnstein, 1969), the crux of the issue is one con-

cerning control, i.e. who has the authority to make decisions

leading to environmental changes. The experience of many attempts

at participation indicates obfuscation of the question of control

through the substitution of a pretence of consultation and

education (Bailey, 1975). In this way, the status quo of urban

decision-making is defended.

It is apparent from the above discussion that the use

of the voice option and the likelihood of its success is con-

strained in a number of ways. These limitations have been seen

to result from variations in the viability of voice for different

people according to their resources, in the problems of group

formation and maintenance, and in the distribution of power and
the structural arrangements of urban politics. Each of these
constraints is suggestive of why the common response to environ-
mental changes is resignation.

ALIENATION

In the present argument, the response of resignation to
alterations in the environment is viewed as reflecting people's
alienation from urban political processes. The term alienation
refers to both a subjective experience, and to a social process
whereby a person, ideally the creator of an environment conducive
to the realisation of his or her capacities, loses the ability
to control his or her life-situation. Passive responses to
environmental changes, particularly those which are negatively
evaluated, are viewed as an example of the phenomenon of alien-
ation in modern society.

Alienation, as part of the experience of urban life,
was featured in the writings emanating from the early Chicago
school of sociology (Wroth, 1938; Simmel 1950). It was hypo-
thesised to be a result of the segmentalisation of human relations,
the predominance of secondary rather than primary relationships,
and the depersonalisation of interpersonal contact. These
factors, in turn, were related to the size, density and hetero-
geneity of cities. A diminished personal ability to control
one's fate, and an increased feeling of social isolation were
related to the experience of urban living. Although these views

did point to alienation as a concrete experience, their reliance
on the factors of size, density and heterogeneity as the explan-
atory variables has generally been criticised as superficial and
too deterministic.

The social psychological investigation of alienation
has emphasised associated feelings of meaningless, powerless-
ness, normlessness, social isolation and self-estrangement
(Seeman, 1959). Current subjective definitions of alienation
refer to a person's feelings that he or she cannot achieve
personal values and goals, either because these goals and the
means to achieve them are counter to prevailing social norms,
or because of frustration associated with their realisation
(Otto and Featherman, 1975). In regard to the latter, an indiv-
idual's evaluation of personal and systemic inefficacy are
hypothesised as important indicators of alienation (Schwarts,
1973), and consequently of the likelihood of a person partic-
ipating in collective action in order to secure the achievement
of values and goals.

A purely subjective approach to alienation is, however,
incomplete. A person may be powerless, and yet be unaware of
a lack of personal control because of little or no knowledge of
societal forces which limit individual freedom eg. the operation
of the market, and political decision-making. And further, a
person may not recognise or accept alternative ways of acting
because they have not been part of his or her experience
(Westhues and Sinclair, 1974, 123). The organisation of

collective voice to contest environmental changes, is a case in
point. Clearly, the above assertions reflect opinions independ-
ent of a particular individual's own perception of his or her
social situation, and are characteristic of an approach con-
cerned with the sources of alienation and the reasons for an
individual's lack of control over action.

For an understanding of the sources of alienation,
Marx's critique of social relations under capitalism is relevant,
as well as Weber's notions of the progressive bureaucratisation
of modern society, (see Ollman, 1971; Berger, 1973; and Johnson,
1973). These explanations of alienation focus on the effect of
the structural characteristics of society on the consciousness
of its members. Ollman (1971, 133-4) describes how alienation
features in Marx's work:

> "Man is spoken of as being separated from his work
> (he plays no part in deciding what to do or how to
> do it) - a break between the individual and his life
> activity. Man is said to be separated from his own
> products (he has no control over what he makes or
> what becomes of it afterwards) - a break between the
> individual and the material world. He is also said
> to be separated from his fellow men (competition and
> class hostility have rendered most forms of co-
> operation impossible) - a break between man and man."

Marx viewed the alienation of the individual from his or her
ideal state as a creature, socially co-operative individual in
control of his or her own activity, as a consequence of the capit-
alist mode and relations of production which treat individuals
as 'things', and the relations between people as those among
'things'.

Alienation is regarded as being maintained by the process

of reification, in which human creations are considered as
external, autonomous things. The reified world is, by definition,
a de-humanised world: 'an opus alienum over which a person has
no control, rather than as the opus proprium of his own productive
activity' (Berger and Luckmann, 1966, 106). Phenomenologically,
reification is considered as a type of consciousness, arising
when people lose their awareness of the social construction of
the human environment. A reified image of the structures of
society involves perceiving them as in 'the nature of things'
rather than as human products, and thus as able to be changed
by the actions of people. Marcuse (1964) links the perpet-
uation of reified thinking to the technological basis of modern
society, arguing that technology fosters the creation of one-
dimensional men who have a false consciousness of their needs,
and who do not question the social structure which creates and
satisfies those needs. The subjective experience of alienation
is thus viewed as one which deprives people of the capacity to
accept or become aware of their own feelings and respond to
their own needs (Friedenburg, 1974).

This brief exposition of social philosophy is intended
to highlight views on the human condition which social scientists
frequently overlook in their role as information gatherers. An
understanding of the process of reification, for example,
provides a powerful explanation of people's resignation to
environmental changes, even when such alterations are realised
to be detrimental to personal values and goals. Further, such
analyses stress the impact of the structures of society eg.

bureaucracies and political organisations, on the decisions and behaviour of people, and thus the effects on behaviour of changing these structures. For example, what is the effect of personal input into the design of environmental changes on the evaluation and response to change?

In summary, this discussion of the problems and constraints associated with people's decision to collectively protest alterations in their environment has served to highlight the group character of the process of environmental change. The distribution of power has been argued to be the key factor in determining 'who gets what and where' in the urban environment. In contrast to previous chapters, attention has been directed to the activities of groups rather than at the individual level of analysis, because of the importance of collective actions, social and political structures, and the role of power in environmental decision-making.

CHAPTER V

CONCLUSION

The preceding chapters have outlined a conceptual

framework for research into environmental change. Of most

importance, the proposed approach incorporates both subjective

and group aspects of alterations in the use of space. Change

as a subjective experience has been conceptualised in terms

of the personal meanings people attach to their lived worlds.

With this understanding of the experiential and symbolic nature

of the environment, it is contended that appropriate emphasis is

placed on the human impact of physical changes.

Evaluation of alterations in the environment has been

approached in terms of the perceived disruptions in a person's

set of environmental meanings. This involves reference not just

to the person's existing situation, but also to his or her

expectations of the future state of the environment. In brief,

evaluation takes place within the life-context of the individual.

The behavioural responses to environmental change,

however, cannot be approached as a wholly subjective phenomenon.

Adopting a conflict perspective, environmental decision-making

has been viewed as a political process involving various social

groups. As a result, attention has been directed at the

problems and constraints operating on the use of collective
action by residents and users of particular environments to
protest changes in the use of space. The distribution of
power has been argued to be the critical variable determining
the course and outcome of conflict over environmental decisions.
At this level of analysis, the influence of social structures,
and the power that accrues to them, on the behaviour and lives
of individuals is an important concern. The phenomenon of
alienation has been discussed in this regard.

The proposed approach thus attempts to link the micro-
situation of the individual, with the aggregate processes of
environmental change. This is reflected, on the one hand, in the
concern for the richness of human experience, and on the other,
in the attention given to social and political conditions
operating independently of any one individual. In general, this
kind of research orientation is characteristic of humanistic
social science.

In most instances, it is clearly not possible to take
into account the full range of subjective interpretations of the
environment. At the other extreme, the imposition of one inter-
pretation of the meaning of an environment for people has been
argued to be equally unrealistic and misleading. For this
reason, the use of personal construct theory to identify similar-
ities in the systems of constructs of various groups, is seen as
a useful compromise. Stringer (1976), for example, has investig-
ated the content and structure of different groups' evaluations
of planning proposals by adopting a personal construct approach.

It must be acknowledged that the interests represented by planners, and the interests of residents and users of particular environments may well be not the same, or reconcilable. The use of any approach to identify different environmental meanings and evaluations should not be allowed to obscure the basic issues of group power and control of the manipulation of the urban environment.

This latter point indicates an important implication of the approach that has been proposed. In contrast to the traditional scientific aims of prediction and control, humanistic social science research is concerned with revealing the range of constraints operating upon the individual's exercise of his or her freedom of choice and creative potential, and with outlining alternative ways by which human choice and freedom can be realised. In this sense, such an approach may advocate different means, eg. phenomenological description, to different ends. Further, the humanistic approach requires social scientists to see themselves as more than providers of information, but also as critics of assumptions and monitors of interests (Bailey, 1975). This of course, includes self-criticism.

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