# Methods of Research into Privacy in Housing

# Alireza Daneshpour, <sup>1</sup> Mohamed Rashid Embi<sup>2</sup>

<sup>12</sup>Faculty of Built Environment, University Teknologi Malaysia

**Abstract:** Systematic research through residents' attitudes, preferences, etc. in dwellings has become the dominant mode of environmental research into building design. Most of these works have been directed at the evaluation of buildings in terms of user satisfaction. Some have proposed, developed and applied procedures for identifying the factors contributing to resident satisfaction in dwellings. Others critically question the extent of the usefulness and appropriateness of the theoretical and methodological ground of this approach. The aim of this paper is to identify an appropriate approach for measuring and evaluating amount of privacy in apartments. The method which used is review of documents related to our issue and the technique which applied in this way is content analysis. The results shows that research into privacy, for the sake of adequacy, must treat people as subjects as well as objects. For research into privacy in man-environment transactions, or for understanding privacy needs and satisfaction with design neither the people itself nor the setting alone are sufficient. It seems that the congruence model is a particularly appropriate approach for studying privacy in design.

Keywords: congruence model, housing, dwellings, privacy

# I. INTRODUCTION

Social science research methods entered architectural practice for the first time in the 1950s. More recently questions have been raised about the philosophical bases of social science procedures which, following the positivist conception relied on the natural sciences for a methodological model. As Studer (1972) noted: "Science no longer seeks truth but useful and reasonable ways of organizing experience." [1] The problem is not new, but its recent emergence from a wider critique of the sciences in general is the result of some radical changes in the scholastic world (Studer 1972, Stevens 1988). This critique must be borne in mind in designing research on architectural issues today, yet the research techniques used still rely on this tradition because they have yielded many important insights. [2]

Theorists on culture remain divided on how best to define culture and what aspects of it to emphasize. A common view in contemporary social science is that culture consists primarily of thoughts, moods, feelings, beliefs and values. The human world has been divided in two: objective social structure on the one hand, subjective thoughts and perceptions on the other and the cultural part is defined as the most fluid, constrained and least variable category of non-behavior. Over the past quarter century, four approaches to the study of culture largely outside the mainstream of social science have been pursued with growing interest. These approaches have been oriented primarily toward the realms of meaning, symbolism, language and discourse. The first is phenomenology; the second, cultural anthropology; the third structuralism; and the fourth critical theory. In contrast to the previous classical approach which emphasizes the subjective moods and intentions of the actor each has come increasingly to stress the more observable objective shared aspects of culture and to seek patterns among them. In other words culture is understood as a behavioral phenomenon instead of having only subjective meanings. In this sense the study of culture includes the meaning of symbols, Conditions, patterns and rules of use which render the symbols meaningfu1.[3] Although this study will conduct some investigation into abstract cultural meanings most of it will rely on the latest approach. i.e. the objective one.

The problem is that the positivist account of science assumes that science produces objective, value-free, reliable facts and knowledge about the world. Phenomenology, on the other hand, holds that these attributes seem dubious or at least simplistic. Phenomenology is to a large degree characterized by uncertainty. Yet phenomenology has its problems too. Still we can learn much from its argument.

The phenomenological movement has recently penetrated architectural thought and received a wide following. Phenomenology 'calls for a return to the foundations of meaning and experience'. [2] Unlike positivism, it considers people more as 'active producers of meaning, than as simply passive hearers'. Rather than an emphasis on and search for causality and precise explanation. Characteristic of positivism, phenomenology deals with the search for meanings and its goal understands.

The phenomenological critique of science attacks certain throughout processes used in the positivist conception of science. Among these is the role of quantification. Though phenomenology as a movement has quite recently entered architectural circles, the role of quantification had already been discussed and criticized by a number of writers.

Several authors, by elaborating the significance and complexity of human experience of and in the environment, have attacked the notion of quantifiability, characteristic of much psychological research in architecture. Quantifiability assumes that all significant and or relevant factors in human experience can be measured in purely quantitative terms' (Daley 1968). The opposite view holds that quantification, by rendering the human condition measurable, can distort, misdescribe, and do violence to experience and thereby lead to erroneous assumptions or trivial conclusions (Daley 1968, Stevens 1988). A third view maintains that quantification, at least in the present state of architectural research could be premature. [4] Attempts at quantification have tended to make numbers, concepts and calculative techniques look 'more real than the phenomena they represent'. He further argued that interest in the quantification [2]. This is especially true of the experience

of privacy [5]. The research method used in this study strives to proceed with the qualitative qualities of built form but recognizes the utility of quantification.

There are generally two orientations to the study and evaluation of the physical environment: phenomenological, which deals with the environment as it is experienced; and objective, which analyses the environment as it is believed to be [6, 7]. Accordingly two different approaches toward the treatment of building users have been used. Canter noted that one approach deals with people as subjects whose experience is of interest, and the other considers people as objects, in which case their behavior is of concern [8]. Arthur Patterson and Romedi Passini, as well as Canter, consider both approaches necessary and stress the employment of a combined approach in which both behavioral as well as attitudinal measures are used .Canter suggested that relating both behavior and attitudes to the attributes of the physical setting can lead to the generation of meaningful, useful and valid information which may potentially promote the understanding of the building-user interface [8].

For the study of privacy, especially in buildings, views similar to these have been proposed by a number of researchers and writers [9, 5, 10]. Treating people merely as objects has been particularly criticized. It has been argued that the satisfaction of people with their privacy in dwellings also requires the measurement of the psychological performance of a building, the evaluation of which is bound to depend on and take consideration of the experience and judgment of the individual [10]. It has been emphasized that research into privacy, for the sake of adequacy, must treat people as subjects as well as objects [5].

Systematic research through residents' attitudes, preferences, etc. in dwellings has become the dominant mode of environmental research into building design. Most of these works have been directed at the evaluation of buildings in terms of user satisfaction. Some have proposed, developed and applied procedures for identifying the factors contributing to resident satisfaction in dwellings [11]. Others critically question the extent of the usefulness and appropriateness of the theoretical and methodological ground of this approach. Donnelly, among others, examines some aspects of housing appraisals which are based on the 'user satisfaction' approach [4]. He points, among other things in such studies, to the neglect of many variables of the social world in which people live. Lee believes 'user satisfaction' alone is not a very useful measure and it provides a low level of explanation [12]. He emphasizes the advantages of an approach which incorporates the above with 'compatibility studies'. The latter studies are concerned with the establishment of a comfortable match between user requirements and design. A similar view has been proposed by Rapaport. He states that a major finding emerging from man-environment studies stresses that it is the subjective environment of the person which affects behavior. And that this subjective world is not independent of the objective environment or real world. For an objective environment to be responsive to and supportive of behavior, Rapoport argues for congruence between the 'subjective' and 'objective' environments. The concept of congruence is an important one for this study and merits some discussion here [13].

# II. PEC MODEL

The model of person-environment compatibility, otherwise known as person-environment congruence or fit (PEC), has been applied in a number of recent studies into man-environment relations (Kaplan 1983). A literature review indicates that research into privacy in housing design needs to go beyond the testing and mere description of privacy of the individual or of the environment taken separately. For research into privacy in man-environment transactions, or for understanding privacy needs and satisfaction with design neither the people itself nor the setting alone are sufficient. The congruence model is a particularly appropriate approach for studying privacy in design. Indeed, Kiyak has proposed the application of a model of person-environment congruence for the study of privacy. In Kiyak work the fit between the individual's desire for privacy and the privacy provided by the physical setting is the main concern. In the other hand what is important is not the lack of opportunities for physical privacy itself; rather it is the lack of congruence between privacy needs and the provision of privacy by the setting. Privacy needs can range from low to high degrees, while the setting of it may vary accordingly. The lack of such a fit and its impact on people is important, especially in residential settings, where neither the environment nor the people residing in it can readily change and adapt to any significant extent. Kiyak's research was based on the use of this congruence concept in an empirical study of privacy.[14]

Kiyak examined person-environment fit between the preference for privacy and the availability of privacy among institutionalized elderly in housing units in long-term care facilities. His analysis and results suggested some positive correlation between user satisfaction and this congruence model. According to him while the setting provided residents with high degrees of physical privacy, those whose desire for privacy was low perceived the setting as too high in privacy and turned out to be less satisfied with the privacy of the setting than those whose desire for privacy was high, who were more satisfied than the former group. Also he found that a situation which provided slightly higher degrees of privacy relative to what was wanted appeared more acceptable to people than a situation which offered some degrees lower than desired. He concluded that optimum satisfaction was associated with a more or less congruent state between privacy wanted and privacy provided by the setting. He stated that when the gap between the latter two is wide, it may influence the individual's well-being in that setting.

However Kiyak's study did not relate design aspects to privacy situations. This is because his approach in the main followed Marshall's (1972) and was one of a behavior-oriented nature rather than a design-directed one. Marshall's (1972) approach was that of measuring preferred and achieved privacy by evaluating the attitudes of a sample population towards privacy in housing (Marshall 1972). Kiyak's (1978) work nevertheless provided some general impression of the relationship between the overall design and privacy needs of the elderly. User satisfaction was not just explained simply by design characteristics; rather the degree of fit between people and their environment was more important for their well-being. His

proposed congruence model between desired and achieved privacy is a useful strategy to evaluating designs in terms of privacy and its relation to well-being and hence it is utilized in this study.[15]

Canter (1970) argued that most user surveys tend to produce information about individual differences in response to aspects of given buildings. Such studies, he said, though of value in their own right, fail to examine systematically or show how differences in design features and architectural elements make for differences in responses. This suggests that comparative studies for evaluating aspect of buildings derived from different design solutions might be a useful methodological consideration. Appraising different dwellings through a comparative study has often been considered advantageous [8]. For example Altman and Chemers (1984) emphasised the adoption of a comparative perspective in manenvironment studies. This study adopts a comparative approach to three design solutions in a setting in which privacy is a paramount consideration.[16]

Recently literature has tended to stress the uncertain basis of much of the scientific methodology in architectural research and practice. Questions have been raised as to the validity and reliability of many of the methods and techniques used, and how useful the data these produce are (Bechtel 1970, Lozar 1974, Patterson and Passini 1974, Stevens 1988(1-20)).[17,18,19] Science is said to be largely characterized by an inductive process of inquiry, an integral part of which is always uncertainty (Jenks 1988). Issues in housing, especially, appear complex enough to preclude any simplistic certainties. "However soundly based or apparently 'good' research or theories may seem, there will always be an element of doubt and uncertainty"[20]

## **III.** CONCLUSION

Environmental studies in architecture have extensively borrowed their research methods and measurement techniques from the social sciences. There has been a considerable increase in recent decades in the number of such studies employing inhabitant or user surveys, especially in housing design. Despite some recently articulated concerns about such research in architecture, this type of research has yielded the most informative results to date. The concerns expressed in the critiques mentioned above do, nevertheless, need to be borne in mind in understanding the strengths and limitations of the methods used here. Research into privacy, for the sake of adequacy, must treat people as subjects as well as objects. For research into privacy in man-environment transactions, or for understanding privacy needs and satisfaction with design neither the people itself nor the setting alone are sufficient. It seems that the congruence model is a particularly appropriate approach for studying privacy in design.

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