Effects of apartment living on children: a critical examination[1]

Willem van Vliet
Division of Man-Environment Relations,
The Pennsylvania State University

Introduction

Single family dwellings have traditionally been the dwelling type preferred by most American families. For various reasons, it is becoming increasingly difficult to realize this preference, and for a growing number of families multifamily housing may be the only feasible option. In this light, it is important to examine critically the substantive basis for concerns on the part of parents and housing-policy officials regarding assumed detrimental influences of apartment living on children. Which aspects of a child's well-being and development are most susceptible to effects of apartment living? To which aspects of the housing situation must the influences be attributed? What evidence is there to support the assertions being made? What remedial measures can and should be taken through planning and design, and what are the implications for housing policies?

As a comprehensive examination of these diverse and complex issues goes beyond the scope of this paper, I will deal here with a few selected aspects of the problem. The following discussion is divided into three sections. I will first point out how current changes in economic, demographic, and energy factors are altering policy considerations and construction trends with respect to multifamily housing. This will provide a backdrop for the remainder of the paper and indicate the timeliness of the above questions. Following this, I will review findings from previous research on the effects of apartment living on children in the United States, Europe, and elsewhere. Finally, I will identify some short comings of research to date and suggest how gaps in the extant literature may be addressed.

THE CHANGING CONTEXT OF MULTIFAMILY HOUSING

The Housing Act of 1968 determined that the Secretary of the Department of Housing and Urban Development "shall not approve high-rise elevator projects for families with children unless. . .there is no practical alternative" (Committee on Housing and Banking 1970: 252). Since that time, important changes in economic, demographic, and energy factors have put policy making with regard to the construction of apartment buildings in a different light.

To begin with, the median sales price of new and existing single family dwellings has increased dramatically, placing a financial burden on the prospective house buyer which is much greater than that faced by apartment dwellers. A Gallup Poll, conducted in 1945, showed that Americans planning to build a new home thought of spending, on the average, $5,000 (Gallup 1972: 523). In 1968, the amount needed to buy a new home had gradually increased to $24,700 which was only half of the money new home buyers had to put down in 1977 and a third of the figure for 1979. The sales price of existing single family dwellings shows comparable increases (see Table 1).

These price increases, coupled with more difficult mortgage conditions, are putting the single family dwelling beyond the reach of a growing number of families. Recent data indicate that, more than before, these families are buying apartments (Garfinkel 1980: 14). This situation seems also reflected in a rise in the proportion of privately owned homes with two stories or more from 17 percent in 1970 to 26 percent in 1977.[2]

In past research on residential satisfaction, occupants of apartments have often cited lack of internal space as a disliked feature of their housing situation (Michelson 1977; Morris and Winter 1978). In recent years, the potential space constraint of apartment dwellings may have become somewhat less severe, as since 1970, the mean number of children in families with children has declined from 2.30 (in the suburb) and 2.21 (in the city) to, respectively, 2.17 and 2.07 (U. S. Department of Housing & Urban Development 1978: 360).

Another factor making apartments a more viable housing

alternative relates to changing family lifestyles. In 1964, Herbert Gans made recommendations to James Rouse, the developer of the new town of Columbia, Maryland, regarding the development of a "mentally healthy social structure" in that community. According to Gans's view at the time, the wife's interest in the home was as "a stage on which she presents herself and expresses herself. . ." (Gans 1968: 188). This observation reflects a notion of family life where the father goes out to work in the city, leaving his wife in a suburban home with the responsibility for household maintenance, as well as socialization and transportation of the children. While this perception may have been accurate in 1964 and perhaps still is for certain population groups today, statistics show that the number of families with the mother accepting a paid job away from home is steadily increasing. In 1977, more than half of all American mothers with children in the 6 to 17 year age group were gainfully employed. The proportion of employed mothers with children under six has more than tripled since 1950 to 42 percent in 1979 and now represents the fastest growing segment of the labor force. (U. S. Bureau of the Census 1979: 400, Table 661). Higher proportions of employed mothers in the Scandinavian and some West-European countries suggest that the United States will experience futher increases in the years to come. Surely, some environments are more supportive of and congruent with the lifestyles of families where both parents are employed than are other environments. The traditional male bias in planning, which has contributed to the development of suburban areas with dispersed houses segregated from non-residential functions, is drawing a growing number of critics. These critics propagate residential environments with easy accessibility to schools, jobs, shops, banks, medical services, and child care (e.g., Mauduit and Raimond 1971; Hapgood and Getzels 1974; Wekerle 1979; Fava 1980). Such environments typically require higher population densities to form a critical mass which can support the desired type and quality of facilities and services within an acceptable distance from the home (Fischer 1976). Apartment buildings are neither a sufficient nor a necessary condition to achieve these density levels. However, in actual fact there is often a trade-off between housing type and accessibility. Facing this trade-off, most employed women seem to prefer living in an apartment in proximity to their place of employment to living in a house which is located at a larger commuting distance (Michelson 1977: 251-7, 340-1).

The attractiveness of high-rise development has also been increased by the greater importance of energy efficiency considerations. In 1974, the Real Estate Research Corporation compared the investment costs of a prototypical low-density community — consisting of single family dwellings, with 75 percent sited in a traditional grid pattern — with the investment costs of a high-density community made up of 40% high rise, 30% walk up, 20% town houses, and 10% clustered single family dwellings. The report's conclusion indicated that high-density developments would result in considerable energy savings and would cost around 40% less than low-density developments[3].

The above scenario suggests that a growing number of families may come to consider apartment living as a realistic housing choice. However, quite apart from any speculations about changing demand for high-rise buildings, the forecasted production of multifamily housing in the United States is impressive. In 1977, the starts of 536,000 homes in multi-unit structures (containing five dwellings or more) were authorized. This represented 27 percent of all housing starts and was an increase of 6 percent over 1975[4]. The United States is currently building at a rate of one and one-

Table 1 - Median Sales Price of Existing and New Single Family Dwellings; 1968 - 1979

Year	Existing Houses	New Houses
1968	$ 20,100	$ 24,700
1973	28,900	32,500
1977	42,900	48,800
1979	69,000	75,000

Source: National Assoc. of Realtors, Existing Home Sales, 1977; and New York Times, Jan. 6, 1980, section 12.

half times the demand of 416,000 units projected for the 1975-1980 period. It is estimated that between 1980 and 1990 an additional 3,670,000 units in multi-family structures will have been built with a further increase of 3,350,000 units by the year 2000 (Joint Economic Committee 1978: 1). It is difficult to accept that it makes no difference how the millions of apartments yet to be built will be designed and arranged in space. Yet, at present, our understanding of apartment housing is rather limited. Indeed, a study recently prepared for the United States Congress concluded that "within the Federal Housing Agency the level of data maintenance and comprehension on multifamily housing is totally inadequate" (Joint Economic Committee 1978: 30). This study focused on economic aspects of apartment housing. Less is probably knows about the social aspects. It seems particularly critical to gain a better insight into the effects of apartment living on children. They not only constitute a large segment of the population; the literature suggests that they are also more vulnerable to environmental influences than most adults (e.g., Booth 1975; Gove et al. 1979). Neither the Department of Housing and Urban Development, nor the former Department of Health, Education and Welfare have conducted any research on effects of housing on children.[5] There exists, nonetheless, a sizable body of literature on children in apartments. Let us review the findings that investigators have come up with.

FINDINGS FROM RESEARCH

The American aversion against apartment buildings as childrearing environments is shared by parents in many other countries. Research conducted in Sweden, Switzerland, Czechoslovakia, and Poland (Musil 1969), France (Chombart de Lauwe et al. 1959), Scotland (Jephcott 1971), England (Department of the Environment 1970), Italy, and Germany (Williamson 1978), The Netherlands (Kelp 1972), Australia (Young 1976), Canada (Social Planning Council 1973), South-Africa (Rip 1974), and Singapore (Hassan 1978) amply demonstrates a nearly universal concern among parents about ill-effects of apartment living on their children's well-being and development. These concerns relate to various aspects of children's physical and mental health, as well as to their social, emotional, and cognitive development. While such abundant proof of parents' preferences may be a legitimate basis for the formulation of housing policies, it does *not* validate claims that apartment living does, in actual fact, have detrimental effects on children. Research, initiated in response to the need for more information, has dealt with a wide range of possible consequences, including respiratory diseases (Darke and Darke 1969), locomotor ability (Crawford and Virgin 1971), insomnia and nervous disorders ranging from neurodermatitis to dyspepsia (Gunn 1968), indoor and outdoor activities (Stevenson et al. 1969), delinquent behavior (Hassan 1977), boredom (Cappon 1972), sense of control (Rodin 1976), aggression (Murray 1974), school achievement (Rip 1974), family relations (Booth and Edwards 1976), and friendship patterns (Cooney 1974).

The findings of this plethora of studies appear to be jejune and inconclusive. With respect to physical development and health, there is some evidence that young apartment children are somewhat less adept at certain climbing and perambulatory skills than are their counterparts living in houses (Jephcott 1971: 94; Crawford and Virgin 1971), but the differences do not seem dramatic, and it is unclear whether they persist through later ages. Darke and Darke (1969) cite a study carried out by Hird, a British physician who, upon examination of the medical records of his patients under ten year of age, found that the incidence of respiratory diseases increased with height of the home. Hird did not control for confounding influences of variables such as social class, health status prior to occupation of the present dwelling, and access to and information about the availability of medical services. However, Fanning (1967) obtained similar results in a more carefully executed study of the health status of children of British army personnel stationed in Germany. One possible explanation may be that apartment children, particularly those living on higher floors, are less exposed to fresh air which might make them more susceptible to colds and similar affections. An alternative explanation may be a psychosomatic one, where the parents' stresses are transmitted to their children. The difference between the two explanations is important. In the second case, the occurrence of adverse effects is not associated with apartments per se, but contingent on the presence of a particular familiar context. Findings from research on effects of high-density housing augment the plausibility of an intervening role played by socio-cultural factors (Schmitt 1963; Mitchell 1971).

With regard to mental health, the literature is replete with assertions regarding the negative effects of apartment living. For example, apartment children would be more aggressive, because they cannot get back quickly to the safe shelter of their homes and, in order to survive, must learn to be tough. Young apartment children would be more neurotic and bored and would develop a greater dependence on their parents who restrict their mobility because of the difficulty of supervising them outside the home. Older apartment children, on the other hand, would roam around freely and, through peer influence, would more likely become engaged in vandalism and other delinquent behaviors. The evidence supporting these allegations appears to be largely anecdotal in nature and based on the personal experiences which observers have had in professional roles such as housing manager (Macey 1959) engineer (Downing and Calway 1963), radio reporter (Grégoire 1971), child welfare worker (Pearse 1968), medical officer (Gunn 1968), and psychiatrist (Cappon 1972). The majority of the studies

dealing with hypotheses like those named above are characterized by a lamentable lack of scientific rigor in the operationalization of concepts, the selection of respondents, the gathering of data, and the control of external variables in the analysis. These are points to which I will return later.

The influence of apartment living on peer group interaction and friendship formation is a moot point in the literature. British surveys conducted in the early 1940s expressed a concern that apartments limit children's social contacts (Cooney 1974; Gittus 1976: Chapter Two). This concern is echoed in later writings by Jephcott (1971), Young (1976), and Grégoire (1971), who believe that apartments inhibit spontaneous social interaction and limit the possibility of receiving friends at home. Also, Rosenberg (1968) has suggested that apartment living would result in anonymity and social isolation. The evidence, however, is mixed. Stevenson et al. (1967) found that parents in apartments insisted more rather than less on seeing their children's friends at home. This enabled them to have some control over possible bad social influences which they could not supervise outside their homes. Filipovitch (1975) failed to find any negative effects of apartment living on children's social interactions, and Farley (1977) found that children who had moved to high-rise apartments had *more* rather then fewer friends as compared to children who had moved to houses, although the difference had dimished one year after the move. Williamson (1978) reported that German parents living in high-rise apartments thought their children would have fewer friends if they lived in a smaller building. This, however, was not the case in his twin study in Italy where children's activities were found to be more family oriented. This contrasts with some other studies which have found that apartment children spend *less* time with the rest of the family than children living in houses (Farley 1977: 115; Hagarty 1975: 144); these outcomes, however may be better explained as a result of self-selection or cultural differences than as an effect of the housing situation.

Best examined in relation to apartment living are children's play activities. Stewart (1970: 11) mentions a study conducted in Venezuela where people, rehoused in high flats on stilts, remade their homes in shacks below the blocks so that their children could run in and out, and play freely. The significance of easy parental supervision and easy access to the outdoor environment emerge as the two principal findings from numerous other studies of children's play activities (e.g., Becker 1974; Bromley 1979; Department of the Environment 1970; Hole 1966; Holme and Massie 1970; National Council of Women of Great Britain 1970; Young 1976). Hart (1978: 389) suggests that, in apartments, parents tend to take an "all-or-nothing" approach with respect to children's outdoor behavior: either the parents relinquish care and let their children play outside anywhere they wish, or they take the over-protective route of keeping them inside the apartment all the time. Children's age seems to be a crucial factor here, as indicated by an Australian study which reported that younger children living in 20-story blocks played more frequently indoors as compared to children of the same age group living in 4-story walk-ups. Among older children, the situation was reverse; those living in the high rises spent more time outdoors (Stevenson et. al. 1967: 92). In recognition of the reluctance on the part of parents to live in apartment buildings, in 1972, the city of Melbourne all but ceased subsidization of high-rise housing for families. Similar legislation had already been enacted in Great Britain in 1968 and has since then been proposed in other countries.

This overview of findings in the literature is not exhaustive, but suffices to indicate the diverse issues that have been investigated along the spectrum of possible influences of apartment living on the children. It also points out that researchers have not quite come up with definitive answers to the existing questions. In the final section of this paper, I will pinpoint some of the difficulties limiting the reliability and validity of most research results obtained thus far and suggest how these difficulties may be overcome.

STRATEGIC ISSUES

There are at least five issues with which future research on the effects of apartment living on children will have to grapple. They relate to (1) the definition of apartment housing; (2) the formulation of a theoretical framework that will help to determine those aspects of the child's well-being and development that are most likely to be adversely affected by a specific configuration of housing features; (3) the gathering of information directly from children themselves; (4) the obtaining of data through longitudinal research; and (5) the identification of obstacles hindering implementation of existing design guidelines. Below, I will briefly amplify these points.

1. Definition of apartment housing

In this paper I have used the terms high rise, apartment, flat, and multifamily housing almost interchangeably. This reflects the loose usage of these terms in the literature. To give but a few examples, high-rise buildings have been operationally defined as buildings higher than safety ladders can reach, higher than 50 feet, higher than 75 feet, higher than four stories, higher than 6 stories, and higher than 8 stories. The British Bureau of the Census has been using a definition "flat" regardless of building height (Kendall and Hill 1952), and there are almost as many definitions as there are National Census Bureaus (cf. Statistics Canada 1978; U.S. Department of Housing and Urban Development 1978; U.N. Statistical Office 1979). To add to the confusion, several authors have confounded living in apartments with living in crowded conditions; clearly, the two may vary independently. Other authors have managed to stay

clear of this terminological morass by avoiding any operational definition, giving free play to the readers' interpretation. A further feat is accomplished by those offering conclusions about effects of living in high rises (alias apartments, etc.) without consideration of comparative data from "other" housing types. Studies that have contrasted high-rise housing with other housing types have generally selected low rises for comparison. The choices made seem to be largely ad hoc, and the underlying rationale, if explicity stated, tends to be a concern with the assumed significance of difference in building height.

What is the upshot of this definitional hair-splitting exercise? Well, it makes one wonder if there is not some more theoretically based way to determine the housing features most relevant to the topic at hand. According to the philosopher Heidegger (1954), the essence of housing (taken as a verb) lies in the need for a protective shelter which allows for the full development of one's self. Merleau-Ponty (1945) disagrees and stresses a dual function of the home as a place to retreat from as well as initiate interaction with the surrounding world; a threshold between an inner and an outer space. This view corresponds with Michelson's (1976: 45-8) suggestion that separation be taken as the most fundamental environmental concept. The question then becomes to find out in which ways alternative siting arrangements and design features separate children from their parents, neighbors, friends, traffic, activity places, and so forth. There is no easy answer to that question, as separation may take several forms, for example, spatial, functional, auditory, and visual. A further complication arises from the fact that in some instances separation may be desirable whereas in others it may not. What is proposed here is one possible point of departure for further study. A better understanding of how particular housing features affect children may guide further refinement and suggest alternative avenues for research (cf. also Rapoport 1980).

2. A theoretical framework

By and large, researchers do not seem terribly concerned about why it might be important to study a particular aspect of a child's life in relation to a specific set of housing characteristics. The usual approach is a sniper approach, that is, apartment housing is related to whatever variable happens to be at hand and of interest at a given moment. An outstanding exception to this is the work of Anne-Marie Pollowy (1977a). Departing from various theoretical notions concerning child development, she attempts to derive design guidelines from children's developmental needs. She discusses such aspects as attachment, exploratory behavior, socializing activities, and the acquisition of knowledge of the environment and indicates implications for planning and design. It seems definitely worthwhile to develop this line of thought further, paying special attention to the concept of separation, and to formulate hypotheses which may be tested by incorporaton in subsequent evaluation of experimental housing projects (cf. Zeisel 1980). This type of approach will help to save research resources and focus attention on issues where aspects of the housing environment and the child's well-being interface in potentially critical ways.

3. Information from children

Research leaves little doubt that parents do not like to live in apartments. Among the prime reasons they cite is an ubiquitous concern about adverse effects on their children. In this light, the paucity of studies that have obtained validating information directly from children is notable. To the extent that children themselves have been subjects of research, data collection has been mostly through the use of observational techniques, and the cases where children were directly queried about their housing experiences are few and far between (e.g., Ladd 1972). Where appropriate for the study of particular dependent variables, it seems highly desirable to adopt a more *pedocentric* approach. This type of approach would also provide better insights into the congruence of the environmental experiences of children and adults. There are some indications in the literature that in this regard there may be significant discrepancies between children and mothers (Hart 1979: 179) and between children and planning officials (Lynch 1977: 55, 78). Preliminary analysis of interviews which we conducted with children living in the Van Dyke and Brownsville projects in Brooklyn, New York, also suggest that the neighborhood perceptions of these children do not mirror the different crime rates found by Newman (1972). Furthermore, it would be important to compare the assessments which adults and children have of the same environment, because their perceptions may be similar, but their frame of reference and the importance assigned to the perceived attributes may differ.

4. Longitudinal Research

It seems unlikely that those effects of apartment living on children which merit our attention are immediate; more probably they manifest themselves only after a sustained period of exposure to this type of housing situation. It seems particularly questionable to infer effects on the child's development from cross-sectional analyses which compare children in different age groups. It makes much more sense to study these effects by comparing the same children at two or more points in time. Such longitudinal investigations are cumbersome, costly, and hence sparse. One full-scale effort of this kind has been carried out at the National Children's Bureau in London, Great Britain (Essen et al. 1978). In this study, a nationally representative sample of 16,000 children, born in one week of March 1958, were studied at birth, and at the ages of 7, 11, and 16 years old (naturally, the original number of children was reduced due to attrition). For the purpose of this paper, the results of this study

are of limited value, as the investigators were concerned with effects of crowding, tenure, and access to amenities, rather than with effects of housing type. The same observation applies to Wilner et al.'s (1962) study of families relocated in public housing in Baltimore, Farley's (1977) work also draws on longitudinally collected data and comes closest to a quasi-experimental study. He compared the activities of children living in houses with those of children living in high-rise buildings of at least five stories, before and after they had moved to these housing types, and he found rather minor differences.

5. Obstacles to implementation of guidelines

While the tenor of this paper may suggest otherwise, there exist highly useful guidelines for planning and designing housing environments in ways that take children's needs into account (Conway and Adams 1977; Cooper 1975; Cooper, Marcus and Hogue 1977; Pollowy 1977b). It is an unfortunate cirumstance that so little is known about the implementation of recommendations that have been made. There is a strong need for follow-up research which will examine what happens to an evaluation or a set of programming specifications after it has been completed. Is it simply filed and forgotten? Or are existing environments modified as proposed? Do new environments include the suggested experimental features? If yes, do they affectuate the intended results? Should recommendations remain just that — recommendations — what is the reason: rigid housing codes, inflexible zoning ordinances, a tight (re)development budget, or perhaps a poor communication structure? These and other questions regarding who decides what is the design, realization, and management of housing direct attention to the social structural context of any ameliorative endeavor. This context has certainly not been the primary focus of interest among housing researchers. Nonetheless, its significance should not be underestimated. Indeed, the success or failure of a particular housing project may well hinge on it.

Lest this paper be viewed as a plea for building high rises, let me clarify what have been the objectives of this paper. This first objective was to raise some questions about the validity of some stereotypical notions concerning the effects of apartment living on children. The second objective was to go beyond those preconceptions to suggest a number of issues which, if resolved, may result both in a more differentiated view of apartment living and better data to inform decisions about alternative possibilities for the siting and design of future apartment buildings.

NOTES

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2. U.S. Bureau of the Census, Current Construction Reports, Series C25.

3. More recently, however, analysts have been somewhat skeptical that high-density communities will indeed lead to highly significant energy savings in transportation and heating (Altshuler et al. 1979). See also the discussions by Borukhov (1979) and Jenkins and O'Brien (1979).

4. U.S. Bureau of the Census, Current Construction Reports, Series C40.

5. Written communications from HUD's Office of Development and Research, d.d. December 20, 1979, and from the National Clearing House for Mental Health Information d.d. December 28, 1979.

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