THE PHYSICAL ENVIRONMENT AS ATTRACTION
AND DETERMINANT: SOCIAL EFFECTS IN HOUSING

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PREFACE

The intent of this document is to convey the structure and content upon commencement of a study entitled "The Physical Environment as Attraction and Determinant: Social Effects in Housing". This study began officially in the Centre for Urban and Community Studies at the University of Toronto on March 1, 1969 under the support of the Central Mortgage and Housing Corporation and of Canada Council. The description which follows is a selection of comments from the original applications for financial support of this project, and does not include elaborations on many specific points which have since stemmed from the research. These materials will be included in subsequent papers as the research program evolves.

William Michelson
Principal Investigator.
The research being planned is a long term study of new residents in four different residential environments to assess the social impact of living in environments with major physical differences (single dwellings v.s. high rise multiple dwellings and proximity v.s. distance to the city center). Specifically, the study will focus on a number of aspects of this general question.

1) To what extent does a particular residential environment tend to attract a particular type of resident? Do people envisage when selecting a new home how they will lead their lives after moving?

2) To what extent does a particular way of life become pronounced in a particular physical setting? Do aspects of the environment influence what people do, with whom they do it, and where they do it, or, all else being equal, do they merely repeat the round of life which they formerly pursued in a physically different environment?

3) If a typical way of life emerges in a particular setting, what happens to the new resident who fails to adopt it? Does he tend to move? Does he tend to develop problems of varying degrees of seriousness? Or, on the other hand, are typical patterns only a statistical phenomenon, unrelated to successful adjustment to the residential environment?

4) What effect does the passage of time have on people's adjustments to their environment? Does it take longer for people to adjust to some settings than to others? What problems typically emerge in specific settings during particular time periods after settlement, and could they be remedied if anticipated?
THE STUDY IN DETAIL

1. Scope and Objectives of the Study.

This is a panel study to be held over a significant length of time in the lives of people who are now in the process of selecting particular types of residence. The purpose is to assess their reasons for making a choice of housing, their expectations of life in the new environment, what normal life is like before and after the move, the relations of expectations to reality, the nature of problems developing within specific behavioural and environmental contexts, and the nature of adaptive behaviour with respect to selected problems, among other phenomena. In scale it is largely due to the necessity to systematically assess the experience of people in each of several markedly different physical settings, with the realistic assumption that their numbers will shrink through inevitable causes through the passage of time. Its primary method is the personal interview, incorporating recent advances in time budget techniques, and the general design is that of the natural experiment.

The objectives of the study are several-fold: theoretical, methodological, and practical. There are a number of sociological principles to be assessed. One is that people select themselves for different home environments according to accurate preconceptions of their social class and life style, rather than simply remedying weaknesses in their old housing such as space. Second is the principle that the physical setting of a person's or family's social behaviour acts as a limiting or encouraging factor to it -- that is, there is interaction between two distinct systems of phenomena. A third area of theoretical concern is the assessment of what behavioural consequences occur in a stress producing situation (among those for whom it is relevant). A fourth area of theoretical concern is the length of time which adaptive behaviour takes between two relative equilibria; length of adaptation should be a function of the specific environment in which it takes place.
Methodologically, this study should take the lead in demonstrating the utility of the time budget to serve as the basis for the several types of analysis that tie together what people do, with whom they do it, and where it is done.

Practically, the study should provide a basis for public policy decisions on urban growth, both macroscopic and microscopic, which include considerations of how different housing alternatives encourage or discourage certain ways of living and of what problems are unique to each. It would suggest what type of future we might wish upon ourselves given a particular policy decision, if the hypothesized relationships prove valid. Each of these objectives will be spelled out in detail in a subsequent section.

2. Theoretical Significance and Practical Importance of the Project.

The general area of scientific knowledge under which this project would fall is that of urban sociology, a subject with many interests and no central, coherent theory but rather a number of lower-level theories. Within urban sociology, there is a considerable degree of interest in how people choose and adapt to their environment, under such areas of interest as "moving", "suburbanization", and "ecology". The place of rational voluntarism with respect to the environment, or "self-selection", has just been raised by Bell (1968). He cites a number of studies which show that people rationally choose their place of abode on the basis of the way they size up the style of life they lead. They do not aspire to a style of life of more advantaged people, but they rather accurately gauge themselves and match this style of life to an appropriate setting. Bell's general point is supported by the works of Firey, Jonassen, Gans (1963, 1967), and Clark, among others, although the latter appears to limit this case to people affluent enough to have a choice of residence. Although currently in fashion, this view of residence goes directly
against the traditional ecological model which posits characteristics of residents of any particular area as ultimate products of inexorable, sub-social (largely economic) forces. Furthermore, even among the proponents of self-selection, there is little satisfactory detail as to what physical components of the environment serve to attract what specific elements of life style. In short, a highly plausible theory requires substantiation as well as specification of its dynamic elements. We should expect, however, that different physical settings will attract uniquely different people, whose unique characteristics can be assessed in their former setting.

A second issue is more general and has been given unduly little attention within urban sociology. This is the extent that conditions of variables in the traditional systems of social action -- the cultural, social, and personality systems -- are limited or optimized by elements of the urban environment, which can be considered as still a fourth analytically distinct system. This is a highly complex matter, and a recent paper specified its ramifications (Michelson, 1968). But the point for investigation is neither one of physical determinism nor one based on perception of the environment, but rather one that asks which (possibly few) aspects of life do people find themselves unable to fulfill in a given setting as well as which ones blossom under the same conditions, all else equal. For example, spontaneous and frequent use of public facilities may be maximized in a downtown, high-rise setting and severely limited in a very distant, single family housing area. Several studies, to take another case, show that extended family relations which thrived in crowded urban "ghettos" waned involuntarily after a move to a lower density, more peripheral area, in favor of a nuclear family emphasis which many other people voluntarily stress as a reason for a move to the same place (See, for example, Young and Willmott, Willmott and Young, Marris, Gans,
A third area of concern is what people do when faced with a stress-producing situation. Such a situation in this study is the case of the family having social characteristics or elements of life style incongruent with one or more aspects of their setting. Mental health studies have shown that lack of ability to change such a situation or adapt to it is highly related to mental illness (Langner and Michael). Geographers have shown that this very same process as applied to housing, produces a change of residence most typically (Wolpert). Psychologically, this phenomenon is analogous to Festinger’s cognitive dissonance theory, which holds that a person cannot sustain two incompatible beliefs; he will change one of them or suffer distress. (Festinger).

What forms of social organization, then, do people erect in order to adapt to a given setting? What model activities and associations emerge? And, crucially, what happens to the person who, all else equal, fails to adapt in a modal way? Does he (a) move, (b) bear the incongruence as a problem, and/or (c) demonstrate that modes are statistical in nature, bearing no connotation of functionality.

If he moves, what does he do next? If he bears the problem, to what does it lead? In short, there is much to be learned about how people handle stressful situations, and the potentially stressful setting proposed for study here is a normal everyday context (as opposed to artificially induced stress) with intrinsically practical implications for any outcome. As a bare start, we should expect that families deviating from functional adjustment patterns will be more likely than the others to either move or display grave problems.

Time is a variable that has received scant attention. Yet sociological theories of social change utilize time in that there is always an interval between supposedly stable situations, during which adaptation occurs. What have never to my knowledge been documented are: 1) the conditions which
suggest how long a time period there will be between equilibria and 2) the effect of that time span upon eventual perception of the emerging situation. Studies of severity of initiation would indicate that the more difficult the span of adaptation, the greater the "investment" in the eventual equilibrium (e.g. Aronson). I suspect that there is a comparable phenomenon occurring differentially among apartment dwellers and single family home dwellers which is important to document; I would hypothesize a quicker but less involved adjustment for the former.

For a study in this area to be meaningful, I believe it must have sociological merit. Yet, pursuing sociological questions within a selected context can also produce results which have the potential for practical importance. I shall conclude this part with a suggestion of the practical aspects of this study.

One of the most noticeable trends of our time is the surge of people to cities. Every decade finds a greater proportion of North Americans living in large metropolitan areas, and the present situation is almost one of emergency. An important part of national effort, public and private, is devoted to housing those people and providing them with sufficient facilities and services so that their presence adds to, rather than detracts from, the public interest.

Recently, however, the crush of immigrants and "in-migrants" into and around established cities such as Toronto has led to serious question of housing policy. Should cities in the future go "up" rather than "out" in order to maintain efficient utilization of present land uses and transportation systems? Without new means of transportation and given the rising cost of land, this seems a logical alternative to many people; they feel the day of the single family home in large cities is numbered. Others argue to the contrary that in an affluent society, consumers clearly vote for individual homes
on private lots, and that this type of residence provides an irreplaceable atmosphere for family life, among other things. These people claim that industrial decentralization and inevitable transportation improvements point to the single homes as the wave of the future, not of the past.

Public policies clearly take sides on such issues. Regional and local planning and zoning bodies can state directly what types of housing will be permitted and in what locations and numbers. Federal loans and mortgage insurance policies determine indirectly but decisively what future trends in physical environment will be.

But what difference does one or another physical plan make to people's lives? Framers of policy often weigh their proposals on many grounds. However, seldom do they have information which can tell them what will happen to the lives of people who are affected by their policies. Yet, such pervasive policies potentially affect the nature of the entire society.

However, many other problems face the houser even after he may have made a choice of basic alternative policies. Even the best products recently produced by housing policies seem to involve social problems. In Great Britain, one speaks of "New Town Blues". In the U.S., luxury high rise apartments on redevelopment sites are hard to fill and then hard to maintain. In Latin America, the natives seem to prefer the products of some of the world's best planners.

What are the problems of housing per se — as differentiated from concurrent and often related family, racial, and other social problems? We need to know what facilities and services might minimize the typical problems that arise at particular periods after settlement in specific types of physical environment. In the proposed study, we intend to assess what typical activities and problems develop among people in particular physical settings, as well as when they appear. We intend to study who is attracted to what kind of
environment and what kind of person succeeds in it.

Besides the direct relation of the principal elements of this study to the broad housing policies of government and of the construction industry, the results could yield important guidelines for the formulation of subsidiary policies and for appropriate kinds of administrative flexibility. For example, if we discover that men participate in few constructive pastimes in suburban, high rise apartments and feel frustrated as a result, one could conceive of arranging for residents' hobby rooms, allotment gardens, etc. on a regular basis. If we find that in new, single family suburbs, women feel isolated for that particular period of time it takes for stores to become established in that area or for them to learn of existing facilities, then one could conceive of subsidies to commercial enterprises for stated periods or of regular "new development temporary concessions" or of education programs to acquaint housewives with existing facilities on a more comprehensive basis than the welcome wagon.

In short, physical plans bring reactions and problems from people which spell success or failure of these plans. By knowing enough of people's typical experience in certain settings, policy makers can make more expert future plans. The study proposed below is an attempt to gather systematic evidence on the social effects of two major aspects of the physical environment which can be turned to the production of policy decisions.

3. Relation to Existing Research and Literature.

The subjects pursued in this study are related to a large but very diffuse body of literature. I am about to publish a short book intended to put this literature into a coherent context and to review research findings. Here, I shall confine myself to a brief review of studies which come closest to the interest of the present study. Since I believe that no study has duplicated the one now proposed, I shall endeavour to point out the differences.
There have been several outstanding panel studies on people changing residence, but they did not typically address the questions raised above explicitly (Wilner, Berger, Morris and Mogey, Fried). They generally ask whether a change in environment (usually an improvement in housing condition and/or amenities) accounts for any type of change among people (usually those with no recourse but to follow the prescribed procedure). This differs from the present task of inquiring who selects what type of housing, for what behavioural reasons, and with what results in terms of adaptive behaviour to the specific elements of a particular environment. Young and Willmott's study of East Londoners was as close as any longitudinal study but the people studied had little choice in their housing and the follow-up was not over as extensive a period as proposed here. Furthermore, only one of these studies (Morris and Mogey) was able to separate the effects of housing from those of location other than by reasoning, since subjects studied generally change both simultaneously; but even in that one study, the nature of housing change is indistinct.

Studies on suburbia typically suffer from the above two lacks: lack of control over elements of the environment and premature closure. It took Clark's research to suggest that life in the suburbs did not always retain the frantic pace observed by researchers who studied only their first several years. Yet, there is no comparable data to show the period of adjustment for apartment buildings in the suburbs or for those living elsewhere.

A small number of studies have been comparative in nature, focusing on the differences among residents of different kinds of housing or location (Ross, Fava, Tomeh, Bell, Kumove, Wallace). However, these studies have all suffered from one or more of the following drawbacks: 1) they failed to adequately define the effective environmental force at work through inadequate controls, 2) they failed to assess in great enough detail the vital behavioural variables (several of the best studies were but pilots), and 3) they failed to answer
the functionalist chicken-and-egg question by not assessing self-selection to the different housing units.

City planners have recently used time-budget methodology in their surveys (Chapin, Chapin and Hightower). Their aim has been the description of activity patterns among great numbers of people so as to generally describe movement around cities as well as the daily, weekly, and seasonal ebb and flow. Yet, the same data gathering device can be used to assess major differences in life styles among people, such as, to take a well-known though highly general case, the life styles called familism, careerism, and consumerism by Bell (1968). They can also be used to assess differences in the life styles of those in different physical settings, differences over time among those in the same setting, and changes occurring to individuals in the course of moving — all highly relevant to the present study. They can be used to get vital family interaction data which includes location and duration, items which sociologists usually fail to include as context. Much recent interest has been placed on this research tool (Szalai), and some work, still incomplete, has been done with relatively similar aims by Charles Tilly in his Boston Housing Authority Study.


Design

To fulfill the several objectives of this study, we propose to study through a significant period of time people who choose to move to significantly different environments. The general design of the study is that of a natural experiment. In many studies, researchers are forced to generalize from single case studies or from post-hoc rationalizations. However, the growth of greater Toronto is uniquely able to permit studying large numbers of people with appropriate personal characteristics who are right now moving to sufficiently
different physical environments so as to make possible statistical control -- to measure the extent that particular physical factors are having their hypothesized effects, all else being equal. Several aspects of the study design need amplification: the sample, the starting point, the total time period and the environments.

The Respondents.

There are many influences on residential behaviour -- social, economic, political, etc. Many young families, for example, may locate in a distant suburb because with current methods of finance, this is the only decent housing they can afford to inhabit. Others will endure other obstacles to live with people of the same ethnic or racial identification. Thus, to study the factors outlined, the people to be studied must be chosen with some care.

We propose to study married couples with children whose incomes are high enough to permit them to live in any of the physical environments selected. Where they live will be their choice. We will not study areas with pronounced ethnic or racial concentrations. People may still turn out to have some relatively homogeneous characteristics within a single area, but this type of homogeneity may be meaningfully studied with respect to the housing and its location -- the major variables under scrutiny. But while the subjects of study are themselves affluent, what may be learned from their common reactions to basic physical stimuli should be directly relevant to the creation of housing policies for other segments of the population.

The Starting Point.

We propose to make our initial contacts with the people we shall study immediately (i.e. several days) after they have selected a residence in which to live. In the case of home buyers, the contact will follow an agreement to buy. In the case of renters, it will follow the signing of a lease.
Beginning at this time will enable information to be gathered on the normal pattern of activities and contacts a person enjoys in his previous domicile. This will eliminate the distortions to routine later caused by the immediate prospect of moving. It will enable "expectations" to be true thought of the future, rather than the justifications of current behaviour that often accompany "retrospective introspection".

**Total Time Period.**

The proposed project will extend over approximately six years, as it involves repeated contacts with the people being studied for a period of five years following each person's move. This longitudinal aspect of the study will enable discovery of crucial time periods in the adjustment of people to their surroundings. It will enable separation of short term effects from long-term effects, a defect noted in the literature. Little distinction, however, has been made previously between the effects of moving *per se* and the effects of moving to a particular environment.

People will be contacted on five different occasions over the six years involved. The contacts will be made proportionate to expectations of what periods will be crucial:

1. Upon selection; 2. six weeks after the move; 3. one year after; 4. three years after; and 5. five years after.

Voluntary cooperation is highly important to the success of such a study, and both the timing and conduct of the interviews will endeavour to maximize subject satisfaction. To offer remuneration to people of this income level would be insulting and in any case inadequate. We must instead make clear the importance of their cooperation. Furthermore, researchers elsewhere have shown that giving occasional, unexpected gifts (e.g. gourmet cheeses, steak knives, etc.) is valuable in keeping the cooperation of large samples of upper-middle
class people.

Nonetheless, because of the extended nature of the study, we can expect a number of dropouts. As stated in the above paragraph, we hope to keep dropouts stemming from dissatisfaction with the interviews to a minimum. On the other hand, some people will change residence because of job changes which take them to other cities or countries; these people will be lost to the sample. Others will change residence within the same city for one or another reason; since the moves these people make and the reasons for them are important data in any study of the effects of the physical environment, these people will remain in the sample. We will endeavour to learn of moves before they occur and to learn the reasons for them. In addition, many techniques exist to maintain contact with movers (Ekland). In all, we anticipate losing about 40 per cent of the sample from the time of first contact to the end of the five year period. This is one reason for starting with large numbers of households in each of the categories of environment. By starting with a large number, we will finish with enough households in each category to permit continued analysis of differences in household units with categories.

The Environments.

The major variables of the physical environment to be analyzed are: 1) housing type, and ii) access to the city center. These combine into four major contrasting categories of environment as depicted below: 1. single family homes both a short distance and easily accessible by public transit to the city center; 2. single family homes distant from the center (on the fringes of Metropolitan Toronto); 3. high-rise apartments centrally located, and 4. high-rise apartments in the far suburbs.
To study people who have chosen to move to such environments before they move in, cooperation from developers and landlords is essential. Otherwise there is no way of gaining access to the people long enough before their moves. Fortunately, initial access to sufficient numbers of appropriate households in categories 2, 3, and 4 has been made possible through the cooperation of a large number of Metropolitan Toronto home and apartment builders. Distant is operationally defined as on or beyond the boundaries of Metropolitan Toronto, with dependence on the private automobile. Close is defined here as within a five minute walk from a subway stop, within the City of Toronto.

Sampling of respondents would be on a stratified-systematic model. For analytical purposes, it is desirable to have an equal number of families in each of the four cells; a total in each of 200 appears appropriate, given the need for subcategories and the fact of attrition. For cells 2, 3, and 4, a universe of new, appropriate priced housing will be established, and, according to the size of each universe, every nth appropriate family will be chosen for study at the appropriate sequences in their move. For cell 1, it is obvious that there is no surge of new "downtown" single family homes. To gain appropriate households for this category, it will be necessary to contact people who have agreed to buy homes in specific price ranges in particular areas of the city, as these homes are sold one-by-one throughout the next year. Again, appropriate liason
exists to make this possible. By these means, a representative sample of families about to move to certain types of development within particular locations will be drawn.

It is evident that this design bypasses other viable housing types "in-between" single family homes and high rise apartments. This is done consciously, inasmuch as the hotly debated general question of "whether housing type makes a difference in the lives of people" can most clearly and most economically be tackled by studying extremes. Furthermore, the principal researcher has comparative materials on townhouses and walkup apartments, for example, in connection with his prior studies at the University of Toronto.

Past research has suggested that life in a newly settling suburb changes radically with time, as the area "matures". This suggests that the general image of the suburb refers to its "newness", not to its physical qualities (Clark, Gans, 1961 ab). To ascertain the accuracy of these assertions, an additional sample of 50 families will be studied. Moving into existing homes in comparable suburban areas over five years old, these people and their activities will be contrasted with the data stemming from Category 2. The recent and unprecedented rise of the suburban luxury apartment in metropolitan Toronto, while extremely instructive for the purposes of this study, precludes still an additional category for comparison with Category 4, inasmuch as they did not exist five years ago.

An additional subsample of 50 families will be taken among those renting center city homes. There is always a question raised as to whether some difference in the meaning of and attachment to a residence doesn't stem from the owner-renter distinction. Since this distinction could be synonymous with the home-apartment difference, the subsample will provide an explanatory perspective to such differences as are documented between residents of the center city.
Techniques.

The major general technique will be the personal interview. Each household will be interviewed at each of the five points of the approximately five and one-half year period.

Within the household, there are some types of straightforward factual information which pertain generally to the household and other types which depend on the experience and opinions of individual members. Therefore, we propose to conduct extensive interviews with the head of the household, to gather both types of information, and supplementary interviews with the spouse and one child (if over ten years of age, preselected by a standardized procedure), to gather the latter types.

The content of the interviews will vary according to the appropriate time period. For example, on the "before move" interview the following data is envisaged:

a) Factual information about the family ("face-sheet data")
b) Residential history
c) Reasons for leaving present home and choosing new one
d) Current interaction and activity patterns
e) Time budgets: daily and weekend
f) Expectations of life in new home
g) Interviewer checklist of present home.

The tentative requirements of the "six weeks after" interview demonstrate both the degree of change and the continuity of subject areas from one interview to another.

a) Changes in family characteristics
b) Problems of moving and settling in
c) Perceived changes in objective patterns after move
d) Current interaction and activity patterns
e) Evaluation of aspects of home and location
f) Time budgets: daily and weekend.

However, a central tool which will be part of every interview will be the time budget. This type of interview asks a person what he did at relatively specific time intervals on the last appropriate weekday, with whom each activity
was conducted, and where it took place. By a relatively parsimonious approach, a researcher can ascertain both the nature and duration of activities, and a picture of the social structure surrounding people; the procedure is an extremely promising one for studies which attempt to link social phenomena with the physical environment.

Following the design of the study as a natural experiment, which creates good possibilities for control and explanation, questions generally will be factual rather than in the area of opinion. We want to know "what did you do" more than "what do you think", wherever the distinction can be made.

Interviewing will be carried out by professional interviewers under constant quality control. Due to the duration of the study and the need for numbers of trained interviewers at specific time periods which are inalterable without harm to the experimental design, it would appear expeditious to use existing organizations for interviewing, rather than to maintain a staff for that purpose alone or to rely on graduate students. But while the interviewing would be conducted by an external organization, all responsibility for design, content, and analysis would be with the project staff. Complementing the interview data would be the work of the two graduate assistants, who would themselves move in appropriate high rise buildings and do participant observation there. This subjective approach would help clarify interview findings, as well as point to relevant questions which had been inadvertently skipped.

Analyzing the Data.

The design of the study as a natural experiment will permit asking the major questions behind the research via a single general approach to the various types of data. This approach is as follows: to what extent can the traits, activities, and/or problems of the people interviewed be traced to their personal or household types or to one or more of the characteristics of the physical
environment being controlled in this study?

This is a statistical question. Within each of the categories of environment will exist some variation in household types and, within most households, more than one type of person (e.g., men, women, fathers, teenagers, etc.). These types can be analyzed in agglomeration across all the environmental categories to gain the benefits of large numbers in some types of calculations and at their more specific levels for other more limited observations. In any case, the basic model intended is that of multivariate analysis — the extent to which dependent variables can be shown strongly associated with one or more of two or more competing explanatory variables.

In addition, analysis along the lines of multiple regression will be carried out to assess the total amount of any phenomenon that can be accounted for by all the possible explanatory variables. Such a scheme will also weigh the importance of these variables vis a vis each other. These types of analysis are feasible with the use of modern data processing equipment. The various instruments of the study will be prepared with regard to eventual processing by electronic equipment.

**Personnel Usage.**

One full-time research assistant would be primarily concerned with the design and testing of future waves of interviewing in this panel study. The second would be concerned more with analysis of each wave of interviews collected. It is clear that the tasks are not completely separate and that they depend on each other for full success. Therefore, both research assistants will be concerned with day-to-day management of the project and with review of each other's decisions. Student assistants will be used for participant-observation as mentioned above, and they will also help out on mechanical details, where necessary; summer work will concentrate on review and synthesis of the preceding year's data.
A full-time research associate would join the project in its second year so as to assume responsibility for analysis of the system of data accumulating from the series of interview waves. His work would culminate in the final products of the study, and would be at a higher level of analysis than that of the research assistants, whose concern would be more than that of exploiting the value of each individual wave of interviews.

Work in Progress.

Work in this project began formally in the early part of 1967, at which time suitable arrangements for study were made with individual homebuilders and apartment developers, the National Homebuilders Association, and the Real Estate Board of Metropolitan Toronto. Drafts of interview schedules for waves 1 and 2 were created. Pre-testing of these schedules on small numbers of people under the conditions set for the eventual study was carried out through the ensuing year, and the schedules were revised accordingly; as a matter of interest, not a single family interviewed once refused the six-week callback, and we found our rapport to be excellent with all but one person contacted.

Schedule of Work to be done.

During the first fiscal year, March 1-December 31, 1969, waves 1 and 2 of interviewing will take place. In years 2 through 6, the successive waves will be held, and most of year 6 will be free for the final analysis which follows the five year follow-up.

Staff (1969).

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