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THE STUDY OF BEHAVIOR SETTINGS AS AN AID
IN MENTAL HOSPITAL ANALYSIS:
A METHODOLOGICAL EXPLORATION

by

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A THESIS

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TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
A. History of Mental Hospital Analysis	2
B. The Ecological Study of Behavior Settings	14
C. How The Behavior Setting is Described by Barker and Wright	22
II. GENERAL DESCRIPTION OF THE WARD AND HOSPITAL	34
A. The Ward	34
B. The Hospital	48
C. The Community	55
D. Hospital in Relation to the Community	55
III. ATTEMPTS TO STUDY PATIENT ENVIRONMENTS	57
A. Goals and Criteria of This Study	57
B. Concrete Attempts to Study Behavior Settings Available to Patients of Ward 7	60
IV. ILLUSTRATIVE USE OF THE BEHAVIOR SETTING SURVEY	73
A. Introduction	73
B. Method	74
C. Variations from Original Techniques	75
D. General Description of Settings Rated	80
E. Illustrative Findings	91
F. Evaluation of the Illustrative Survey	107
V. SOME POTENTIAL MODIFICATIONS OF THE MIDWEST TECHNIQUE FOR USE IN HOSPITAL ANALYSES	117
A. Direct Observation and Time Sampling	118
B. Reduction of Settings into Component Subsettings	120
C. Population Turnover	123
D. Space Ratio	125
E. Population Density--Modal Interpersonal Distance	126
F. "Coercion Scales"	127
G. List of Major Component Subsettings	130

	Page
H. List of Behavior Objects Used	131
I. Impressions and Descriptions of the Physical Atmosphere	132
J. Impressions and Descriptions of the Social Atmosphere	134
K. Specific Action Patterns	135
L. Two Aspects of Analysis for Small-Scale Studies	137
VI. CONCLUSIONS	140
A. Suggestions for Research	140
B. Uses and Limitations	147
VII. SUMMARY	154
REFERENCES	156
APPENDICES	159
A. Sample Observations	159
B. Diagrams	189
C. List of Potential Behavior Settings	194
D. Sample Worksheet	200

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LIST OF TABLES

Table	Page
1. Population, Occupancy Time, and Penetration in Selected Ward 7 Settings	93
2. Occupancy Time of Settings in Patient-hours	95
3. Total Action Pattern Ratings for Selected Ward 7 Settings . .	98
4. Maximization of Action Patterns--Ward 7	101
5. Prominence of Action Patterns in Midwest and Lawton	102
6. Settings Maximizing Particular Action Patterns	103
7. Total Behavior Mechanism Ratings for Selected Ward 7 Settings	105
8. Maximization of Behavior Mechanisms	106
9. Prominence Index of Midwest Behavior Mechanisms	106

I. INTRODUCTION

For some time an analysis of The Veterans Administration Hospital in Roseburg, Oregon, has been in progress. Early in the course of the writer's traineeship in that hospital, it was suggested that he undertake an analysis of the "continued treatment" ward to which he was assigned. The immediate question was how to study such a ward, as the ongoing hospital analysis had no formal system for the analysis of wards.

One suggestion was to start with a study of the groupings of patients on the ward, but while formal groupings dictated by physical arrangements and assignments of patients to activities were easy to discern, the informal friendship groupings were much more difficult to discern than on a ward with more active patients. Informal patient groupings were observed mostly in terms of relatively subtle nonverbal interactions such as:

Patient KAQ comes quietly into the latrine and hands patient XR several squares of chocolate, leaving the latrine immediately. Neither patient speaks. They are never seen visiting, and seldom even in close proximity.¹

¹All patients' initials used in this paper and its appendices are coded.

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Much of the verbal interaction was unclear to the observer such as

Following "Morning Medications," patients TAU and TAL are seated on a couch in the central hall. Alternately they speak in short sentences incomprehensible to the observer. They do not look at one another, but the tones of voice and the fact that both do not talk at the same time suggest a pleasant conversation.

It appeared that many usual methods used in hospital analysis were inappropriate. Our problem was to find or develop a method for studying the behavior and environments of these patients in some systematic yet meaningful way.

A. History of Mental Hospital Analysis

The ultimate goal of all mental hospital analyses is to provide information which by direct implication or through analysis might act as a guide in restructuring environment in which the mental patient lives. The goal of such restructuring is to make the patients' environment more therapeutic or at least more tolerable. Most of the progress toward this goal has been recent.

For over half a century, there have been studies of social institutions by sociologists and anthropologists. Among these have been studies of cities, towns and primitive villages; welfare institutions and prisons also have been studied from a sociological point of view for many years. The mental hospital, however, was a somewhat forgotten institution as an object of scientific study during the earlier years of sociological analysis. Concentration of scientific investigation here focused on the individual's psychic functioning and the individual

biological concomitants thereof to the point of neglect of the environment of the individual whose abnormalities of behavior were so intensively scrutinized. Such study of the mental patient's environment as did occur was left to the reformers of the past two centuries whose unsystematic studies of mental institutions unavoidably resulted in strongly negative evaluations. The work of these reformers, chronicled by Deutsch (6) and others may well have had some influence on the thinking of Sullivan, who, after ten years of intensive study of hospitalized schizophrenics, announced to his colleagues in 1931 that there was direct and observable relationship between the schizophrenic's behavior and the nature of his social environment. (26) In 1934 Moreno published the application of sociometric techniques to confined individuals. (15)

In 1935 Dembo and Hanfmann made a detailed study of the relation of the mental patient to his environment, focusing entirely on the psychological position of the patient upon his admission into the hospital. (5) Using a form of participant observation, they gathered data consisting of spontaneous statements and questions from patients upon admission. They were able to classify patients according to the nature of their statements into six major groupings.

These groupings were characterized not in theoretical terms, but in terms which characterized the behavior of the patients. They were: a) primitive drive out of the hospital, b) insight into the basic factors of hospitalization, c) refusal to accept reality of the

hospital situation, d) preoccupation by the patient with his psychotic experiences, e) seeing the hospital as a place of refuge, and f) a "narrowed situation" in which the patient protested only against particular routines, but not against the hospital or the fact of hospitalization. In an extended theoretical discussion they used Lewin's topological concepts to analyze the ecological position of each of these categories of patients.

So far as we know, this was the first serious attempt to systematically investigate a hospital environment as it existed for the patients. Apparently there have been few if any further studies along these lines to determine the nature and frequencies of reactions to other environments and the reactions by patients who had been hospitalized for longer periods of time.

It was apparently Sprauge in 1937 who first suggested that a mental hospital, as well as other institutions, could be viewed as a miniature society. (23) The following year, Rowland acted on this suggestion, publishing "Interaction Processes in the State Mental Hospital," (17) which consisted of a discussion of the nature of interaction among patients in the three major categories which he discerned by observation and the use of informants.

These types of interaction were characterized by: a) maximum insight and sympathetic interpretation which included parole patients and various patient leaders; b) maximum insight with violent emotion, which included interactions based on object choice or on idea choice;

and c) interactions characterized by considerable withdrawal, including the deteriorated and vegetative patients and the non-deteriorated isolates. In addition, he noted various forms of mass behavior in which there was a high degree of conformity, such as church, concert, and dance attendance. This "mass behavior" is characteristic of what we shall later call "standing behavior patterns."

In 1939 this same author published a similar account of the friendship patterns among both patients and staff personnel. (18) Among the patients he found attachments corresponding to behavioral characteristics and the fact of patients having come into contact in two or more situations. Among the staff he noted a system of "closed social class" in which there was little public display of friendship between different class members. Within this context he noted that clandestine dating and secret friendships appeared to be the basis of the hospital grapevine. Between staff and patients, he noted the psychological separateness of their worlds in contrast to their close physical proximity. In this paradoxical situation he found elaborate amenities insuring a formalized impersonal control.

The studies occurring after 1939 are too numerous for comprehensive listing in this space. Bibliographies may be found in Chapter 2 and Appendix B of Stanton and Schwartz (25) and in Greenblatt, York and Brown. (9) Studies after 1939 may be placed into a two-way classification: a) Major published studies, i.e., the four books devoted exclusively to the subject of mental hospital analysis, and b) a larger

number of published articles, of which only a few will be mentioned as methodological examples; the methods used in these will be briefly discussed.

In the major published studies to date, the focus has been concentrated predominately on the institutional social structure of the hospitals and wards studied, justifiably scrutinizing many aspects of the institution to which the patient is seldom, if ever, exposed.

Stanton and Schwartz (25) describe the formal and informal social organization of a small analytically oriented hospital, focusing on the goals of the institution and the general methods by which these goals are, or are not, achieved, and the locus and use of both formal and informal power. Perhaps most striking are the findings of these writers concerning communication and intra-staff relations as related to the so-called indications of "intra-psychic" disturbances. The book is written, however, so as to interweave concrete findings with theoretical frames of reference to such an extent that the present writer is seldom able to determine which parts of a statement are factual findings concerning a regularly occurring phenomenon and which parts are illustrative elaborations of an eclectic theoretical point of view. While this certainly does not negate the importance of the discussions and findings of that book, the net result is that the book gives little that can be used in comparing that particular institution with other institutions. Indeed, this was not the primary goal of that study. Furthermore, findings capable of being used for comparative

purposes are not likely to be found by the use of the diary method of data collection upon which the authors laid most emphasis. The few places in which data potentially useful for comparisons were mentioned, such as the frequency of the charge nurse's patient contacts on the disturbed ward, and the frequency of incontinence and disruptive behavior, were gathered on an "as necessary" basis, the separate measures having no explicit integration or central focal point. This is a fact which seems determined primarily by the comprehensive scope and intent of this pioneering study.

The book by Greenblatt, York and Brown, (9) traced in detail the development of therapeutic patient care in three mental hospitals in cooperation with the Russell Sage Foundation. The primary concern was with the nature of the patients' social and physical environments. This involved study of the influence of these environments on the behavior of the patients, and the details of the means by which these environments were made more therapeutically effective. The authors of this book took great pains to ascertain the factors involved in making the many changes reported.

The book is informative not only through its careful reporting of the means by which patients' environments were altered. It is also informative through its careful reporting of the difficulties encountered. In this, it underscores the fact that beneficial change does not automatically follow scrutiny of those aspects of a hospital which are obvious to the patients, but necessarily involves dealing

with a vast array of "behind the scenes" social factors in the hospital culture to which patients may never be exposed.

We feel that two aspects of the book are worth emphasizing. First, throughout the book the aims of the efforts reported were not merely research, but were oriented directly toward the meeting of practical and immediate needs. Second, most of the changes brought about were done so on the basis of intuitive analysis of the problem-situations confronted. One gets the impression that the great strides in patient care were accomplished largely without the use of elaborate research tools.

Although the primary concern of this action research was alteration of patients' environments, the scope of the work did not permit detailed descriptions of patients' environments in a way that may be compared readily to those of other hospitals. We still have little detailed concrete knowledge of what was there before the changes, nor what is there after the changes.

In Human Problems of a State Mental Hospital, (2) Bellknap again takes a broad sociological view of the hospital under consideration. As in the previously mentioned books, the focus is on analyzing the social structure and the staff behavior more thoroughly than it deals with the actual world to which the patient is daily exposed. If anything, it is more concerned with the social structure of the institution than the other books mentioned.

The second book published by Greenblatt and his associates, The Patient and the Mental Hospital, (8) serves a valuable function in

summarizing much of the theory, findings and methodology up to the time of publication. It is intended as a text and reference work in the area of psychiatric administration and hospital analysis, and again is concerned almost exclusively with problems of institution organization and ideology. Due to the theoretical nature of most of the contributions, it like the other major publications gives us little concrete information concerning the ecology of the mental patient himself, but more of the ecology of the staff member of the mental hospital.

An unpublished study by Luchins at the Oregon State Hospital represents a more comprehensive anthropological survey of that particular hospital. This study, guided by Luchins' hospital analysis manual (13) is attempting a detailed and comprehensive account of the actual behavior which occurs in that hospital, making minimal use of theoretical conceptions and selectivity of observations. In this study, analysis of the institutional structure is, as it frequently is in Stanton and Schwartz, (25) held secondary to the behavioral concomitants of that structure. This primary focus on the environment in which the patient lives stands in contrast to the focus of those major works previously mentioned. In addition, it is expected that the study will yield data which may be compared with similar data from other institutions and from one ward to another within the same institution. The very comprehensiveness and detail of this study, however, precludes the economical usefulness of its methodological frame of reference for large-scale comparisons of hospitals, or for frequent or long-term studies within an institution for practical administrative purposes.

Nevertheless, this is the only large-scale study we know of which attempts to study the patient's environment in and of itself. Other workers in the area contributing the minor published studies have studied specific features of the patient's environment in isolation, or in relatively intuitive, unsystematic ways. They have presented important findings, but have not developed techniques with which many relevant aspects of widely differing institutional environments might be studied.

Certain aspects of hospital environments which are relatively easy to document have been studied for comparative purposes for some time. These are such data as number of beds, staff-patient ratios, pay rates for staff, patient turnover measures, forms of therapy available, and other similar data. While the importance of these and similar measures is not to be denied, it is also true that they leave much to be desired if one is to attempt to view them as descriptions of the environment of the mental patient.

The American Psychiatric Association's "Architectural Study Project" is currently investigating the physical structure of the patient's environment resulting in articles such as that of Ozarin (16) and Tuma and Ozarin. (27) These studies have included analysis of the gross physical locomotion of patients in mental hospitals of differing physical arrangement, and analysis of current practices pertaining to patient privileges in various hospitals, the goal of these studies being better understanding of the architectural needs of mental hospitals. Here again the particular usefulness of the project is obvious, and the study of the total environment is not attempted.

Investigation of the social features of the patient's immediate environment has been attempted by a number of techniques. Sociometric techniques have been extensively applied by Hyde & York (10) to cite one example of numerous studies. These as well as many other techniques for studying social behavior in the hospital setting are limited to use with a relatively small number of patients. Other techniques which involve verbalization of preference, furthermore, are limited to use with only those patients who are able to articulate consistent choices.

Maas, Varon, and Rosenthal (14) have developed a method which apparently can be applied to patients by an observer to determine in a gross way the behavior of large numbers of patients at once. The technique takes into account the behavior directed toward both physical and social aspects of the environment. It may well become a tool of wide usefulness insofar as it is capable of considerable flexibility in terms of the sorts of behavior which may be dealt with and in terms of the variety of situations to which it may be applied. Unless the forms of behavior are rather strictly specified, either by the observer's notation, or by the explicit goals of the research in which it is used, the resulting data would perhaps be too general to be of great value. By definition, this method also lacks the comprehensiveness required by any study which might attempt to deal with the patient's total environment.

There have been many studies of the more broadly defined behavioral features of patients' environments. A multitude of behavior

rating scales have been found useful in determining the general nature and level of patients' behavior. These scales are designed to indicate the behavior of particular individuals, and only in a very general way can be considered to indicate the behavioral environment of patients.

Important intuitive studies of the patient's total environment have been made by researchers who entered hospitals covertly in the role of patients, for example, Caudill, Redlich, Gillmore and Brody. (4)

These studies perhaps communicate more of the overall phenomenal impression which the hospital creates in its patients than other more systematic studies. Nevertheless, they too are too selective in their focus (i.e., focusing on the experiences of one person during a limited period of time) to be the major source of data for a comprehensive analysis.

Bettleheim, in the book Love Is Not Enough, (3) made an attempt to communicate the essential features of a therapeutic program, by an intensive analysis of examples of behavior occurring in specific situations. The fact that he chose to break the total school environment into psychologically meaningful units such as "waking up," and "in the bathroom," will be seen to be important in the context of the present study insofar as this procedure recognizes that a patient's psychological environment is structured in such a way that certain types of behavior occur in certain contexts and not in others. Again, the intuitive mode of analysis is of value more for communicating understanding than for comparative purposes.

In this section, we have obviously been using two major criteria which should be made explicit before progressing further. The first of these is that the environment of the mental patient be studied directly and explicitly. By pointing up this criterion, we do not mean to belittle the significance of social structure studies. It is probable that thorough understanding of the patient's environment can only occur in the light of knowledge of the formal and informal structure of the institution. Nevertheless, it seems axiomatic that absence of rather detailed knowledge of the patient's environment per se will preclude understanding of that environment and the patient's relation to it, that is, the ecology of the hospitalized mental patient.

In pronouncing this as a criterion, we refer to our assumption that the fundamental goal of analyzing hospitals is to make the environments which they offer to their charges more therapeutic, or, lacking therapeutic goals, at least more tolerable to the patient. We should hope, that with sufficient research, hospital analysis should eventually produce guides for administrative decisions as to specifically what sorts of environments will be most therapeutic, and as to how such environments might be constructed. As pointed out by Stanton and Schwartz (24) such guides are all but nonexistent at present. If this is in fact the major or fundamental goal of hospital analysis, we feel that far from ignoring the patient's immediate environs, we should tend to concentrate a large share of our research energy in the direct and explicit study of environments to which the patient is exposed.

The second criterion which we should make explicit is that some method of data gathering and analysis should be employed which is capable of being used in a comparative way. Stanton and Schwartz point up the need for comparison of patients' behavior in different institutions (25, p. 30) and Levinson (8, p. 635) makes a stronger call for a "cross-hospital" or "cross-institutional" comparative point of view. His discussion of research needs also includes more adequate formulation and measurement of significant variables, more adequate sampling techniques, and bases for causal inferences, and reduction of the ambiguities of naturalistic observation without sacrificing too much in "breadth of view and in depth of insight." Concerning this last point, he says, "Speaking from personal experience, I should say that one of the most difficult--and most exciting--challenges in this field is to combine naturalistic observation and more controlled research design so that each supplements and enriches the other." (8, p. 636).

B. The Ecological Study of Behavior Settings

The question becomes, then, how may we study specific hospital environments in such a way as to obtain comparability in our findings. It is our contention that the "behavior setting analysis," an ecological method developed by Barker and Wright and their colleagues (1) is adaptable with surprising ease to this problem, in that it is a method of describing environments precisely and systematically.²

²This paper will make frequent references to the book, Midwest and Its Children, by Barker and Wright. Therefore, page numbers referred to, unless otherwise noted, will refer to that work.

Our use of the term "ecology" is not the same as that of Stanton and Schwartz where they refer to the "matrix of interpersonal relations." (26, p. 352) It is also different from Lewin's analysis of environments in terms of psychological factors constituting individual "life space" such as goals, barriers, etc. (7, p. 169) Instead, our use of the term is closer to that of the biologist who refers to the relationships of groups of plants and animals to the soil composition, humidity, rainfall, amount of light available, food supply, etc. This usage does not refer to the relations of particular individuals to each other and to the physical environment, but refers to such relations for species members en masse. Barker and Wright see their work as the "psychological analogue" of the biological conception of ecology, (1, p. 1) and in the study of behavior settings, do not include that behavior which is attributable solely to behavior characteristics of individuals.

Stimulated largely by the thinking of Lewin, who called for the study of psychological ecology, (12) Barker and Wright sought to describe as effectively as possible the behavior of children in Midwest,³ and the relations of that behavior to the immediate, directly observable environment in which the behavior occurs. The primary goal of the research efforts going into the book, Midwest and Its Children, was to develop methods of describing behavior and environments in such a way as to produce accurate, detailed, comparable

³"Midwest" is a code name for the small town in which these investigators maintained a field station for the purposes of the study.

and theoretically neutral descriptions. In this section we will attempt to outline the method sufficiently to aid the reader in understanding of concepts and methods used in the present study.

One of the initial tasks in this effort was to select appropriate units for description of environments. The unit selected by these authors for the description of the environment in which behavior takes place is of crucial importance to us. It is the "behavior setting." (pp. 7-10) A behavior setting may be briefly described as an observably consistent patterning of extra-individual behavior which occurs within a discriminable part of the physical, temporal and social environment. A behavior setting is not defined by any one of these aspects taken alone, but by all of these aspects taken together as an integral unit.⁴

A behavior setting, then, includes such aspects of an environment as the geographical place, the time, and the nature of the concrete physical surroundings. It includes the "behavior objects," that is, the physical objects with which behavior is concerned, such as books, hammers, and food, and the behavior associated with them. These are the essentially nonpsychological properties of a behavior setting, which, taken together, are called by Barker and Wright the "nonpsychological milieu." (p. 8)

⁴A detailed discussion and definition of behavior settings is to be found in Barker and Wright. (pp. 45-66)

For psychological purposes, however, the nonpsychological milieu is perhaps much less important a part of a behavior setting than are the more social or psychological aspects of it. A behavior setting also includes the people in it. It includes not only the physical number of people present in the nonpsychological milieu, but the behavior of those people as well. This is termed by Barker and Wright as the "standing behavior pattern." (p. 87) Here, one might refer to the behavior of people en masse to indicate the persistent extra-individual nature of standing behavior patterns.

Examples of standing behavior patterns in the behavior setting, "Morning Medications" would include the patients waiting at the door, patients swallowing pills, nurses selecting and handing medication cups to patients, and aides pouring water. These are acts the major features of which are performed pretty much the same way regardless of who performs them. The standing behavior patterns do not include the particular, idiosyncratic manner in which a particular patient says "Good Morning" to the nurse, but does include the fact that five per cent of the patients say "Good Morning." Nor does it include a patient taking a pill directly from the rack of medication cups.

One way of thinking of behavior settings which has been helpful to the present writer is to think of them as including those things which are obviously apparent to any person who enters the behavior setting. "This is what the place looks like, and this is what is going on--this is the situation to which I expect to adapt my individual behavior."

How big is a behavior setting and what are its limits? This is a question which must be raised concerning any unit of description whether it is a physical or psychological unit. A behavior setting is defined not by the nonpsychological milieu alone, nor by the standing behavior pattern, but by an integration of the two. Thus, the "Morning Medications" behavior setting is not exclusively defined by the fact that it has behavior occurring at the ward entrance, nor is it defined by the fact that someone is passing medications, nor even by the fact that a particular group of people are assembled. "Morning Medications" as a behavior setting is defined by the location, the multiplicity of standing behavior patterns, and the people present (e.g., Ward 7 patients, at least one nurse and three to five aides) in combination. Barker and Wright provide us with a statistic, "K" which helps to determine the relative separateness or unity of two potentially independent behavior settings. (pp. 62-66) It is based on the extent to which various aspects of potentially separate settings are related.

The matter of determining whether behavior settings are independent or closely related is one part of our answer to the question of "how big is this unit?" When we ask about the size of a unit we are usually thinking in terms of something similar to physical size or weight, like the size of the unit "inch" which is defined by distance between particular marks on a particular bar of metal under particular atmospheric conditions. We can go to the Bureau of Standards and see concretely how big an inch is. Unfortunately, no

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statement this solid can be made concerning the size of a behavior setting as a unit. It is more like the biological units "organism" and "cell," which are not defined by their physical characteristics, but by their unitary nature. The size or inclusiveness of a behavior setting is also defined by its unitary nature, but with less explicit or tangible meaning to the term "unitary."

Behavior settings come in a variety of psychological sizes, and are fruitfully seen as occurring in a hierarchial structure. Thus in an example of "Ward 7 Meals" as a behavior setting, we find that this setting includes a rather large number of "subsettings." (pp. 48-50) These are the different "parts" of the setting, for instance the serving line, the men seated three or four at each table, and the movement of patients through the door. The serving line, combined with the activity of patients, and the servers is a subsetting, and within that are smaller subsettings such as the serving of entrees and the line-up of patients before getting trays. A setting which does not include any other settings is termed a "cytsetting;" an example of this is the aide checking attendance of supper. A setting which is not included in any larger setting is termed a "unit setting."

Barker and Wright were concerned with the whole community of Midwest, and within that framework, a hospital (if there had been one), might have been considered a unit setting. Usually in a hospital analysis the hospital will be considered not so much as a behavior setting in a larger community, but as the community itself. Because

of the small scope of the present study, we are concerned with just those behavior settings open to the patients assigned to a particular ward. This means that the hospital becomes a quasi-community, in which many settings will be ignored (e.g., personnel office), and the parts of the ward subjected to analysis will be treated as unit settings.

In addition to size or "external dynamics," there are other properties of behavior settings which bear mentioning at this point. A behavior setting, according to precise definition (which will be given later), must include standing behavior patterns, which are "synomorphic" with the nonpsychological milieu. The easiest rough interpretation of this term "synomorphy" is to say that the behavior "fits" or "seems to belong" in the milieu, just as serving "belongs" at the serving line itself, and not in hall and stairway, and eating "belongs" to the tables rather than to the doorway. Barker and Wright assert that possible sources of synomorphy of standing patterns of behavior and nonpsychological milieu include at least the following: (pp. 55-57)

1. Physical forces
2. Social forces
3. Physiological processes
4. Physiognomic perception
5. Learning
6. Selection of behavior settings by persons with suitable behavior repertoires
7. Differential selection of behavior by behavior settings
8. Influence of behavior on the milieu.

A final major characteristic of behavior settings is that the milieu is "circumjacent" to the standing behavior patterns. This occurs

(a) when the temporal or physical boundaries of the milieu actually surround the behavior pattern as in the case of a store or a holiday, and (b) when the behavior pattern is distributed among spatially separated parts of the milieu as in the case of a paper route or a game of hide-and-seek. (p. 47)

Thus, a medication cup is not the milieu of a behavior setting, even if it is reserved for a particular setting, because the standing pattern of behavior takes place outside of it. It is not circumjacent to the behavior. In Barker and Wright's terms, it is a part of the milieu, termed as a "behavior object."

The formal definition as used to determine whether a given situation is a behavior setting or not runs as follows.⁴ (pp. 60-62)

To be included as a behavior setting, a community part must be:

1. a discriminable pattern in the behavior of men en masse which occurs independently of the particular persons involved in it, i.e., a standing pattern of behavior
2. which has a synomorphic relation with
3. a particular milieu complex
4. that exists independently of the standing pattern of behavior, and
5. is circumjacent to the standing pattern of behavior.

It is important to emphasize that behavior settings are not hypothetical constructs as are "ego" and "habit strength," but are empirical facts which everyone recognizes in his everyday life. We speak of "going to a party in the canteen," and of "attending group therapy;" a doctor will speak of "making rounds" in a way which indicates that

⁴Further explicit instructions for eliminating nonsettings are to be found in Barker and Wright, Appendix 4.

this is a behavior setting which he sees as existing rather independently of other aspects of the hospital and independently of other parts of his daily activity.

"Behavior setting" is a concept, which we see as having fundamental usefulness in attempting to describe the environment of the mental patient. In short, the patient's external environment consists almost exclusively of behavior settings which can be viewed objectively and described with sufficient precision and systematization to be compared to the environments of patients in other hospitals.

C. How The Behavior Setting is Described by Barker and Wright

The descriptions of behavior settings in Midwest and Its Children make very little reference to the nonpsychological milieu, as this is not considered the most important aspect for the problems they studied; therefore, their descriptions of behavior settings were almost entirely in terms of population and various aspects of the standing patterns of behavior.

1. Population.--To qualify as a behavior setting, an environment must include people engaged in a standing pattern of behavior. The setting is partly described in terms of the classifications of people inhabiting it. Barker and Wright used the following overlapping classifications of population:

Infant	Male	[Economic] Group I	White
Preschool	Female	[Economic] Group II	Negro
Younger school		[Economic] Group III	
Older school			
Adolescent			
Adult			
Aged			

2. Occupancy time.--This is the indication of the extent to which a behavior setting is entered and occupied. Occupancy time consists of the total number of hours a setting is occupied multiplied by the total population. For instance, if group therapy exists one hour each of three days a week and is attended by nine patients and one therapist, the total weekly occupancy time is 30 person-hours.

3. Penetration of behavior settings.--Penetration refers to the degree of involvement and responsibility with which each inhabitant participates in the setting. Barker and Wright distinguished the following six "zones" of participation:

- Zone 1. Onlooker (a ward 8 patient waits while a group of ward 7 patients pass by him on the walk)
- Zone 2. Audience or Invited Guest (audience at variety shows; visiting relatives)
- Zone 3. Member or Customer (ward 7 patient in ward 7 dayroom)
- Zone 4. Active Functionary (janitor in ward 7 dayroom; dishwasher in canteen)
- Zone 5. Joint Leaders (Ward 7 physician and ward 7 coordinator in ward conference)
- Zone 6. Single Leader (Ward 7 physician accompanied only by nurse and aide on ward rounds)

It will be noticed that "penetration" refers somewhat to "power position" as well as to degree of involvement and responsibility, and that Zone 6 is the most central zone in a setting.

4. Action Patterns.--The Action Patterns are the thirteen variables discriminated by Barker and Wright which refer to the more molar features of standing behavior patterns. It has been noted by the present writer that they can also be fruitfully thought

of as referring to the purposes or goals of behavior. Barker and Wright classified behavior into the thirteen "action patterns" listed below. Each of these action patterns is rated on four subscales which will be described after listing of the action patterns. The action patterns are described as follows. (pp. 72-76)

1. Aesthetic. Applies to any artistic activity, to any behavior aimed at making the environment more pleasing.
2. Business. Applies to the exchange of goods, services, or privileges where payment is obligatory. Does not include gifts of money or hiring out for wages.
3. Earning a Living. Applies to any activity for which wages are received. Does not include the behavior of an entrepreneur whose rewards are from his profits or fees received on each transaction.
4. Education. Applies to formal education of any kind; does not include incidental learning or teaching.
5. Government. Applies to behavior which has to do with government at any level.
6. Nutrition. Applies to behavior which has to do with eating or drinking for nutritional purposes.
7. Orientation. Applies to behavior in settings which has to do with giving temporal, geographic, or social information.
8. Personal Appearance. Applies to improving, or appreciating personal appearance to wearing uniforms or symbolic clothing.
9. Philanthropy. Applies to behavior which has to do with giving to good causes, being charitable.
10. Physical Health. Applies to behavior which promotes or maintains physical health, to recognizing the healthy. Applies specifically to physical, not mental, health.
11. Recreation. Applies to behavior which gives pleasure.
12. Religion. Applies to behavior which has to do with worship.
13. Social Contact. Applies to visiting, being pleasant, having fellowship, having interpersonal contact.

It appears that the vast majority, if not all of human behavior, can be placed in one or more of these thirteen abstract categories.

It is important to note that these categories overlap to no small

degree when any particular bit of behavior is being considered; for example, the writer considers the passing of a medicine ball in "Corrective Therapy" to be Physical Health, Social Contact, and Recreation, although the formal purpose of "Corrective Therapy" is physical health, and the social contact is added on an informal basis by the Corrective Therapist. It appears to be the combination of social contact with physical exercise which produces a feeling of recreation.

Each of the action patterns is rated on the following subscales:

(pp. 71-72)

1. Participation Subscale. Participation means actually behaving within the setting in ways which are described in the definition of the action pattern. The percent of the total person-hours of behavior in the setting which involves the action pattern is judged and converted to a rating on the following scale.

Rating.

- 0 The action pattern does not occur in the setting.
- 1 The action pattern occurs in 1 to 20 per cent of the person-hours.
- 2 The action pattern occurs in 21 to 40 per cent of the person-hours.
- 3 The action pattern occurs in 41 to 60 per cent of the person-hours.
- 4 The action pattern occurs in 61 to 80 per cent of the occupancy time.
- 5 The action pattern occurs in 81 to 100 per cent of the occupancy time.

As an example, nearly all the behavior in "Disposition Board Meetings" is devoted to hospital administrative (government) decisions; therefore, the action pattern Government receives a rating of "5" on the participation subscale. In addition, every inhabitant of the setting except the patients who are seen by the Disposition Board is in the act of earning his living. As patients enter the setting singly and for relatively short periods of time, over 80 per cent of the

person-hours are attributable to staff members, who are earning a living; therefore, the action pattern Earning a Living also receives a rating of "5." In a typical Disposition Board meeting, the action pattern Social Contact would probably also receive a rating of "1" or "2."

2. Supply Subscale. Supply refers specifically to providing materials for carrying out the action pattern in another setting. Buying and eating a milkshake at the drug store soda fountain is judged on the participation subscale, but buying ice cream to take home is judged on the supply scale.

Rating. Rate as on participation subscale.

As an example, behavior setting "Lunch" for ward 7 includes a rating of "1" on the supply subscale for the action pattern Nutrition, and "1" on the supply scale for Philanthropy. Something less than 20 per cent of the person-hours is spent by patients picking up bread, cookies, milk and packets of sugar which are carried out of the setting. It seems that about 50 per cent of this is ultimately disposed of by patients in the form of gifts to staff and other patients and in the form of feeding the birds along the walk leading from the dining room to the ward. The actual percentage of person-hours probably averages about one per cent for each action pattern, but is always greater than zero.

3. Evaluation and Appreciation Subscale. Evaluation refers to behavior which explicitly recognizes the values of the action pattern, whether good or bad, or tests its effectiveness. Applauding at a play is an evaluation of the action pattern Aesthetics and Recreation; presenting attendance pins in Sunday School for a year's perfect attendance is a recognition of the action pattern Religion; giving tests in school is evaluation of the action pattern Education. Rate on the following scale.

Rating.

- 0 No behavior in the setting explicitly evaluates or appreciates the action pattern.
- 1 Less than half of the occupancy time of the setting is devoted to evaluation or appreciation of the action pattern.
- 2 More than half of the occupancy time of the setting is devoted to evaluation or appreciation of the action pattern.

As an example, in the behavior setting "Variety Show" less than one-half of the total person-hours is spent in explicit evaluation and appreciation of the performance; therefore, the action patterns Aesthetic, Philanthropy, and Recreation (in which the performers are participating) receive a rating of "1" on their evaluation and appreciation scales. "Psychological Testing" and "Disposition Board" are almost totally explicit evaluation of mental health; however, this potential action pattern is not usable at present and the rating of "2" must be spread over evaluation and appreciation subscales of several of the previously mentioned action patterns.

- 4. Teaching and Learning Subscale. This subscale refers only to explicit teaching and learning of the action pattern; it does not include incidental learning.

Rating. Rate as on evaluation and appreciation subscale.

As an example, the behavior setting "Occupational Therapy on Ward" receives a rating of "1" on the Teaching and Learning Subscale for the action pattern Recreation.

The total rating for any action pattern consists of the arithmetic sum of the ratings on all four of its subscales, and this total may vary from zero to 14. The maximum grand total of action pattern ratings

would be a matter of purely academic interest (it is 182 and impossible to achieve). The actual, obtained grand total of action pattern ratings is used by Barker and Wright as a part of their "richness index," (pp. 79-80) and is considered by them to be an indication of the number of "functions" or number and variety of goals and subgoals which can be achieved within the setting. The present writer tends to see this in a more vague way as an indicator of the "importance" or "total meaning" of the behavior setting.

The procedure used heretofore in the rating of action patterns was for the observers actually to participate in the behavior settings for a sufficient number of times that they felt fairly certain that they had good knowledge of the settings to be rated. (20) They then made the ratings on the basis of their acquired knowledge of the settings and such notes and records which had been accumulated. Barker and Wright report their reliability findings in the following way. (p. 76)

Independent judges agreed in their rating of behavior setting action patterns on a random sample of 45 behavior settings to a degree indicated by product-moment correlation between pairs of judges from .68 to .97 with an average of .89. The reliability coefficients for the different action patterns are:

<u>Action Patterns</u>	<u>Correlation</u>	<u>Action Patterns</u>	<u>Correlation</u>
Aesthetics	.85	Orientation	.70
Business	.68	Personal Appearance	.84
Earning a Living	.97	Philanthropy	.92
Education	.91	Recreation	.93
Government	.94	Religion	.95
Health	.86	Social Contact	.85
Nutrition	.91		

5. Behavior Mechanisms: Behavior Mechanisms refer to the more molecular aspects of standing behavior patterns. Barker and Wright used ratings on three subscales, participation, tempo and intensity, for seven behavior mechanisms, which are defined and rated as follows.

(pp. 77-79)

Gross Motor Activity. Refers to the active movement of the large muscles of the body; gross motor activity is opposed to sedentary behavior.

Talking. Any form of verbalizing; includes singing and cheering.

Manipulation. Refers to the use of the hands in prehension.

Thinking. Refers to decision-making and problem-solving; does not include routine behavior or emotional expression.

Affective Behavior. Refers to overtly expressed emotionality.

Looking.

Listening.

There are three subscales used for the rating of all behavior mechanisms, except Looking and Listening, which are rated by a separate method because of their ubiquity. The three subscales are:

(pp. 76-77)

1. Participation Subscale. Participation refers to the degree of occurrence of the mechanism in the standing behavior pattern of the setting; it is rated according to the following scale.

Rating.

- | | |
|---|---|
| 0 | The mechanism occurs in less than 10 per cent of the person-hours of the setting. |
| 1 | The mechanism occurs in 10 to 33 per cent of the person-hours of the setting. |
| 2 | The mechanism occurs in 34 to 66 per cent of the person-hours of the setting. |
| 3 | The mechanism occurs in 67 to 90 per cent of the person-hours of the setting. |
| 4 | The mechanism occurs in more than 90 per cent of the person-hours of the setting. |

2. Tempo Subscale. This subscale refers to the maximum speed with which the mechanism normally occurs in the setting; the unusual, abnormal burst of speed is not rated. The terms slow, median, rapid, and top speed, used in describing the scale points, refer to the total range of speed with which the mechanism in question occurs in a normal population in a wide variety of behavior settings.

Rating.

- 0 When the mechanism occurs, its maximal speed is normally slow; reaction times are long.
- 1 The maximal speed of the mechanism is normally in the median range, neither fast nor slow.
- 2 The maximal speed of the mechanism is normally above the median range.
- 3 The maximal speed of the mechanism regularly occurs at top speed, near the physiological limit.

3. Intensity Subscale. Intensity refers to the usual, maximal rate of energy expenditure via the mechanism.

Rating.

- 0 When the mechanism occurs, the maximal rate of energy expenditure is very low.
- 1 The maximal energy expenditure is normally in the median range.
- 2 The maximal energy expenditure is normally above the median range.
- 3 The maximal amount of energy exerted is near the physiological limit.

The method of rating the behavior mechanisms Looking and Listening may be found in Barker and Wright, Appendix 8. Briefly, the rating of these mechanisms is on the participation subscale only, and the method of achieving a rating is as follows. An estimate is made by the rater of the extent to which the total rating for each action pattern would be reduced by blindness or deafness. The reductions are then summated for all thirteen action patterns. The total of reductions due to blindness are divided by the grand total action pattern score and

multiplied by ten to obtain the Looking mechanism rating; and the total of reductions due to deafness are divided by the grand total action pattern score and multiplied by ten to obtain the Listening mechanism rating. Direct rating of the mechanisms was not feasible.

Barker and Wright report reliability for the behavior mechanism ratings in the following way.

The reliability of the ratings of the behavior setting mechanisms was investigated on a sample of 59 settings. Independent judges did not differ significantly in rating the mechanisms Gross Motor Activities, Talking, Affective Behavior, Looking, and Listening. They did differ significantly beyond the one per cent level of confidence on the mechanisms Thinking and Manipulation. Systematic errors were corrected for the latter two mechanisms. (p. 79)

In general, the behavior mechanism ratings seem to be less satisfactory than the action pattern ratings both in terms of reliability and in terms of the apparent value of mechanism ratings. They are taken by the writer to indicate something of the over-all appearance of the setting, i.e., whether there is generally a lot of "hustle and bustle" in the setting, or whether it is talkative, etc. It is felt that the generally lower reliability of behavior mechanism ratings is related to the fact that they are less intrinsically meaningful than the action pattern ratings.

6. Interdependence of Behavior Settings. Some settings are obviously independent of all other settings. Others are highly interdependent, sharing the same persons, the same power figures, the same nonpsychological milieu, the same behavior objects, or the same standing behavior patterns. When interdependence is sufficiently

close between two settings they are considered to be subsettings of the same setting and are rated as the same setting.

In most cases the independence or interdependence of settings is intuitively obvious; however, this is difficult to judge in the case of some pairs of settings. Barker and Wright have developed a statistic, "K," which makes use of the above factors of interdependence and aids in assessing interdependence. (pp. 62-66 and 491-495)

7. Varieties of Behavior Settings. Behavior settings can be classified into groups based on the similar nature of the settings even though they are not interdependent. For example, all of the bedrooms on the ward under study are essentially similar in terms of population categories, milieu and standing behavior patterns. They, therefore, constitute one variety of behavior settings. A measure of similarity, "S," was developed at Midwest as an aid in determining the varieties of behavior settings in a community. (pp. 57-58 and 81-83)

8. Richness of Behavior Settings. Richness refers to the varieties of behavior possibilities within a setting, and appears to be a concept of some theoretical importance to Barker and Wright. A "General Richness Index" may be computed which involves the penetration zones reached by the various population classifications in the setting, the variety of action patterns to be found in the setting, the variety of behavior mechanisms used in the setting, and a code number to indicate occupancy time. Details of computing the richness indices may be found in Barker and Wright. (pp. 79-80)

Certainly, this method is not the only way of describing behavior settings, but is simply one way that has been developed which is

capable of producing data which may be statistically compared. The way of describing behavior settings used by Barker and Wright consists essentially of a complex multitude of rating scales. All of this data may be punched into IBM cards to facilitate analysis and the ease of using such data for comparative purposes is obvious.

Behavior setting descriptions are ubiquitous, being found in newspapers, personal letters, administration manuals for psychological tests, The Journal of Experimental Psychology, and Greek classics. Most of these behavior setting descriptions are rich in qualitative material which the descriptions in Barker and Wright's "Behavior Setting Survey" lack. It was for this reason that at the beginning of the present study, we attempted to use only the concept of behavior settings in describing the patient's environment without using Barker and Wright's method. Otherwise we followed the lines of Luchins' hospital analysis manual. (13) As the present study progressed, however, it became apparent that detailed qualitative descriptions by the writer were incapable of easy use for comparative purposes, and an attempt was made to use the methods of Barker and Wright toward this goal. This paper represents something in the way of a progress report on that effort.

PLOVER BOND

NO CONTENT

II. GENERAL DESCRIPTION OF THE WARD AND HOSPITAL

In order that the reader may better understand the discussion of the methods explored, it seems appropriate at this point to introduce him to the ward and hospital in which the study took place.

A. The Ward

Ward seven is occasionally referred to as "the bottom of the pit." Ward seven patients have the reputation of being chronic, regressed, disorganized, dirty, withdrawn, and rather thoroughly resigned to their futures. This reputation is more appropriate to the "east end" of the ward than to the "west end." The basic fact of the ward's organization is the distinction between these two wings. The ward is bilaterally symmetrical about the central hall, which houses the offices, the major entrance, and elevators. The two wings are exact physical duplicates of each other. The "west end" has always been regarded as the "better" end, being cleaner, lighter, quieter, and its patients in better condition. This end of the ward was opened in June 1958. On the other hand, the "east end" has always been considered dirtier, darker, noisier, and its patients less well organized. The east end of the ward is the major basis for the ward's reputation; however, there is sufficient similarity to discuss the ward as a whole here.

Ward seven has been the chronic ward in this hospital for years. In recent months the official name of the ward has changed successively from "chronic" to "continued treatment" to "habit training" ward, and it is felt by the writer that in some ways the atmosphere has changed correspondingly.

1. The Patients. Ward seven has a capacity for 140 patients, and is almost always within five of this number. As the various names for the ward imply, these are patients for whom the prognosis is very poor. The breakdown of diagnostic categories as of February 14, 1958, was as follows.

a. Diagnostic categories.

<u>Diagnostic Category</u>	<u>Number of Patients</u>
Functional	
Schizophrenic and Dementia Praecox	
Hebephrenic	40
Paranoid	27
Catatonic	15
Chronic undifferentiated	7
With mental deficiency	11
Unclassified	8
Mixed	3
Simple	2
Simple and paranoid (two diagnoses)	1
Not specified	2
"Other types"	<u>1</u>
Total Schizophrenic	107
Manic-Depressive Psychosis	1
Psychoneurosis with anxiety reaction	1
Aesthetic reaction	<u>1</u>
Total Functional	110

<u>Diagnostic Category</u>	<u>Number of Patients</u>	
Organic		
Paresis and CBS with syphilis	13	
CBS with psychotic reaction	2	
CBS with alcohol	2	
CBS with trauma	1	
Arteriosclerosis	3	
Cerebral Paralysis	1	
Epilepsy, Jacksonian	<u>1</u>	
Total organic		23
Mental deficiency with psychotic reaction	3	
Chronic alcoholism with history of psychotic reaction	<u>1</u>	<u>4</u>
Grand total of patient population on ward 7		137

To the casual observer, evidence of delusions and hallucinations are not widespread on the ward, as the patients seem to realize these forms of behavior are not acceptable and result in people moving away from them.

b. Race and age. There are usually from three to five Negroes on the ward and one to three Orientals. The remainder are Caucasian. In terms of age, ward 7 patients can be roughly grouped into two age brackets, consisting of World War I veterans and of World War II veterans, with some overlapping. Ages of patients as of the 11th of February, 1958, according to ten-year groupings, are as follows.

<u>Age</u>	<u>Number of Patients</u>
Under 30	2
31-40	34
41-50	15
51-60	27
61-70	51
Over 70	1
No record (All appear to be over 50)	<u>9</u>
	137

c. Occupational background. The occupational backgrounds of these men are more obscure. Of the 137 patients on ward 7 on the 14th of February, 1958, 61 were of unrecorded occupational background; 50 were listed as having unskilled laboring jobs; 19 were skilled, semi-skilled, or white-collar workers; and five were students.

d. Length of hospitalization. Ward 7 patients may accurately be considered long timers. Most of them have been hospitalized in VAH Roseburg for over ten years; 24 have been in this hospital since it was opened as a mental institution in 1938. As of the 14th of February, 1958, the numbers of patients entering this hospital at five-year intervals were as follows.

<u>Date of Admission</u>	<u>Number of Patients</u>
1938-1940	42
1941-1945	18
1946-1950	30
1951-1955	18
1955-1958	26
Not recorded	3

This distribution reflects the influx of World War II veterans and the opening of the hospital in 1938. Most of the longer-term patients are to be found on the east end of the ward, severely withdrawn and disorganized. However, the earliest group does contain a few "institutional cures" and "institutional improvements," who hold privilege cards and do some regular work in the hospital.

e. Gross Behavioral Characteristics. All ward 7 patients are able to walk and almost all eat unassisted; however, about 35 patients on the "east end" are always assisted in dressing. As a group they are characteristically considered quite dirty, about ten of them requiring the use of huge bibs at meals, and seven of them incontinent of feces and/or urine during the daytime. Incontinence is considered by the aides to be the major problem of the ward. One psychologist remarked in a half-joking way that, although he liked the patients he had gotten to know on ward 7, the dirtiness of the place and of the patients "gives me a handwashing compulsion everytime I go up there." Other staff members refer to the "ward 7 smell."

Ward 7 patients, for the most part, are confirmed chain smokers. A few are restricted in their smoking by the staff, either because they are considered to be smoking too much or because they tend to burn their clothing. All other patients are allowed to smoke as much as they desire from the time they have finished dressing to the time they go to bed. There are, of course, certain behavior settings, such as the dining room, where no one is allowed to smoke. Many of the patients have stained and even charred fingers from continuous smoking of cigarettes to the very end.

Ward 7 patients are almost always docile; however, many are stubborn about changes in routines. Although fights occur on the ward, they are characteristically brief and result in slight injury, requiring no medical attention. The aides attribute the docility, in no small measure, to the effects of tranquilizing drugs. At the start of the study, over 120 patients were receiving tranquilizing drugs. At present, the number is near 90.

While no patients on ward 7 are considered completely mute, the majority of the patients do not speak readily, even in response to direct questioning. When a patient speaks of his quietness, it is often in terms of his observation that people come and go on the ward and no one really seems to care what he has to say. Such a statement reflects unrealistic assumptions about human relationships, but there also seems to be a strong element of truth here.

f. Resignation. Ward 7 patients have a characteristic way of walking--a rather slow gait with the head bent down and the shoulders hunched--much like the walk of a depressed man in a driving rain. For the most part ward 7 patients are themselves resigned about the prospect of ever leaving the hospital, or ever being able to enjoy life. They find the ward to have a depressing atmosphere, as do staff members and visitors. A few examples stay in the writer's memory.

Patient MAM, a hebephrenic, ex-prize fighter, when spoken to concerning the possibility of participating in various activities

in the hospital, smiles in a calm, sad way, saying, "It's no good, Doctor; I can't do it; I'm a dead man, nothin' but a dead man."

Paranoid patient TCL's frequent remarks about having died several years ago were shrugged off by the writer as being private delusional material until it became apparent that he was referring to his admission to the hospital. Also, he has twice referred to the hospital, saying, "It's like a big bunch of coffins stacked up; ain't nobody gettin' out."

The writer, while touring the ward one evening, spoke to patient JR in a casual way, "Hello, Mr. R____; how are you doing?" The patient, who sits for the entire day in the same chair apparently sleeping, looked up sharply and shouted, "How am I doing! That don't help me!" and proceeded to become very angry and incoherent.

In group therapy patient NO spoke bitterly at length about the staff's mechanical way of treating the patients, and his claim that they do not go out of their way to stimulate the patients into activity. He concluded with, "They act like they want us to stay locked up in our dream worlds." It was in this context that he said to the therapist upon meeting him later in the day, "Now, for God's sake don't ask me how I am!" going on to elaborate upon the connection.

This then is the basis for the reputation of the ward 7 patient-- chronic, regressed, disorganized, dirty, withdrawn, and resigned to his future.

g. Work. On the positive side, it should be pointed out that over 30 ward 7 patients hold regular jobs in the hospital, the

majority of them working for the "outside detail" which cares for the lawn in the hospital cemetery.

h. Privileges. During June 1958 some 60 privilege cards were issued, most of them to men who had never had privilege cards before. Many of these men at first refused to take them, apparently because they expected them to be revoked later. It became a standard way of issuing a privilege card to say, "You don't have to use it if you don't want it, Mr. _____, but you just sign it and it will be there in the office for you whenever you need it." On June 26, the west end of the ward was opened for the first time since 1938, and there were no "incidents" associated with opening of the ward other than several patients asking whether it would stay open and whether they were to have other privileges which commonly go with open wards in the hospital. At the time of this writing, 80 ward 7 patients have privilege cards.

i. Patient turnover. The ward has a consistent turnover of from one to five transfers per week. Approximately one-fourth of the transfers from the ward are to the convalescent ward. Usually, one or two ward 7 patients are on "trial visit" or "leave of absence," and a few patients are discharged from ward 7.

j. Social grouping. Insofar as spontaneous grouping is perceptible to the outside observer, it seems to occur according to two principles. One, patients with similar communicative ability tend to group together, and two, patients with similar attitudes toward the hospital tend to group together. Only the groupings of the few chronic neurotics and

character disorders who reach the ward are readily discernible. There are, however, other very vaguely defined friendship groupings of patients that are not generally recognized by the staff. As far as the writer is able to determine, these groupings are manifested almost entirely on a non-verbal basis. The patients involved are recurrently, but not frequently, seen together in certain settings. They usually do not talk, at least while in the presence of the observer.

Usually the only observable indication of friendship is a quiet passing of candy or a cigarette from one patient to another. A few examples will indicate the typical nature of these interactions and show why it is difficult to establish the existence of social organization among these "withdrawn" patients.

June--East Dayroom. Patient OAG is sitting in a chair in the "bleachers." Patient NN approaches and, almost automatically, as though it had nothing to do with NN's approach, OAG gets up and NN takes the chair. Neither man speaks or looks directly at the other.

Anytime--either dayroom. One patient gets up from his chair and goes halfway across the room to another patient, then holds out his hand silently with palm up, down, or sideways. The second patient fishes out a cigarette and puts it in the first patient's hand. The first patient returns to his chair, stopping by another patient, bending down with the cigarette held to his lips. This third patient holds out his burning cigarette, lighting that of the first patient. There is no word or other gesture which seems essentially involved in this standing pattern of behavior.

July 2--2:30 p.m.--in the Grove. Following a game of "Bocci ball" conducted by the Volunteers, candy and peanuts are passed out to those patients who participated. NAW, the only patient from ward 7 who participated, hangs back from the group, appearing to be too shy to reach for the boxes of candy and peanuts that are being passed around. Patient TAU, who was a spectator of the game, walks to the Volunteer and takes a bag of peanuts from the box to the apparent slight irritation of the Volunteer. TAU then turns directly to NAW and hands him the bag of peanuts. NAW smiles in a shy way as TAU returns to his seat on the bench. Both patients are considered severely deteriorated and have been on the ward for a long period of time. There is no verbal interchange.

April--Canteen. Observer sitting near patient BD in canteen. Patient QB passes BD, and as he passes, holds a candy bar extended from his hand which hangs by his side. BD takes the candy bar and QB continues at the same pace. Neither patient speaks and the only sign of recognition other than the passing of the candy bar is a glance out of the corner of the eye just before the bar is passed.

February--Walk to Meals. Patient TAW walks to meals with his arm over DX's shoulder with neither speaking. They reside on different ends of the ward and do not see each other there. They do not sit together at meals.

2. Physical arrangement. The physical layout of the ward is diagramed in Appendix B. This ward is located on the second floor of Building No. 2. Access to the ward is through the wide fire stairs

Germanized

at either end of the building, which are closed off from the dayroom by a heavy grating, via either of two elevators which open into the central hall of the ward, and by way of stairs which also open into the central hall of the ward. It was during the course of this study that the fire stairs at the west end of the building were put into regular use prior to the opening of the "west end" of the ward.

The ward, containing 140 beds, is arranged symmetrically about the central hall which contains offices for the ward physician, ward secretary and nurse. Adjacent to the physician's office is the small "luxury" room which contains shelves and cupboards for patients' cigarettes, candy bars, etc.

Each wing or "end" of the ward contains a large, clean, but undecorated, dayroom and four bedrooms, each containing ten to 16 beds. These rooms are ordinarily locked during the daytime and patients on the ward are to be found in the long hallway, in the latrine, in the large dayrooms, and on the end porches. The washroom on the west end is continually open; however, the washroom on the east end is closed except when under the observation of an aide. Each end also has a locked clothing room, which contains clothing and personal effects of the men on that end. The porches, with the exception of the center front porch, are secured with a heavy wide mesh grating. The front porches are kept locked and the back porches, although generally considered off limits to patients, are occasionally visited by patients who reach them through the unscreened latrine windows. A small conference room built into the east porch is used for ward conferences and for group therapy only.

Problems associated with the physical structure are usually not thought of as such, the physical structure being considered as a "given." The recurrent problems usually noted by patients and staff as being related to the physical structure center mostly around problems of crowding in certain behavior settings, especially "Shaves" on the "east end," when all patients without electric razors enter the east end of the ward. During this time there are approximately thirty to forty more patients than there are chairs, and the atmosphere becomes dense with cigarette smoke. The crowded condition and general discomfort seems to put both patients and staff slightly on edge. The situation is accepted, however, and disruptive behavior is not an unusually frequent occurrence in this setting. The large increase in privilege cards granted during the course of this study (60 cards issued in June) greatly relieved the situation in that aides urge privilege patients to leave the ward as soon as they have finished shaving.

The distance of the dining room from the ward is another major problem commonly associated with the physical construction of the ward. The problem is twofold, one concerning the comfort of the patients and the other concerning the custodial function of the staff. For the ward 7 patient, as well as the patients in the other wards of that building, the seemingly long walk to the dining room could never be entirely comfortable in the drizzly rain of Oregon's winter. Money for a covering over this walkway has not been available. Concerning the staff's custodial function, it was difficult to escort 140 patients, some of whom tend to walk quite rapidly and others, particularly very

old men, who walk quite slowly, in a close-knit group. Rather frequently, especially during the early stages of the study, the writer heard that one of many administrators in "the other building" had called the nurse's attention to the fact that the line of men was stringing out quite long. This situation has been greatly relieved by the opening of the "west end" and the subsequent allowing of these patients to go to meals unescorted.

3. Staff.

a. Composition. The ward 7 staff numbers 21 aides, four regular nurses, one secretary, one coordinator and one physician. Of the aide staff, the day crew has been usually composed of seven to nine aides on week days and five or six aides on week ends. The hours of the aides are staggered so that, beginning at 6:15 a.m. one aide from the day shift arrives, three or four more at 6:30, and the remainder at 7:30. The purpose of this is to help the midnight to 8:00 a.m. shift get the patients out of bed and dressed in the morning before breakfast, which is scheduled for shortly after 7:00 a.m. The three or four aides on the evening shift arrive at 3:30 p.m., allowing for a half-hour overlap in shifts. At times, the ward was staffed largely with aide trainees, this ward being considered a training ward. Severe shortages of personnel occurred during the hours when all the trainees departed for classes so that recreational activities frequently had to be canceled at those times.

b. Social organization. This ward is considered to be a smooth-running ward and this was confirmed by one of the aides, who,

Reorganized

returning from an advanced training class, remarked to the charge nurse, "Gee! I thought we had a few problems here; I haven't been going over to the canteen much or anything so I don't hear much of what goes on. The other wards have all kinds of troubles that we never thought of having." The practical, everyday routine of maintaining the ward is directed by the ward nurse, a distinctly feminine woman in middle age whose sincerity seems to draw the respect of almost all nurses and aides who work with her. Informally she has designated "lead aides" who alternate days of taking responsibility for the carrying out of routine custodial functions. The lead aides work closely with her, freely offering suggestions but showing a willingness to do whatever her judgment dictates. The lead aides then hurry back and forth among the aides covering the ward for last-minute scheduling before movements of patients and in scheduling times when aides will be free for lunch.

c. Communication. It is a part of the ward culture to keep ward problems on the ward and not feed grist to the rumor mill (especially in the canteen), and the complaints and intra-ward problems reaching the writer's ears from the day shift are negligible. When these are heard, they are heard with equal frequency from the ward coordinator, the nurses, the secretary, and the aides. The writer does not seem to be kept an outsider to ward happenings. Complaints are rather frequently heard from the evening nurses and aides, however, and because of this, the writer has temporarily served as an emergency channel of communication between the two shifts. The

evening shift, though much smaller, is informally organized in the same way as the day shift. Within the shifts there is strong "esprit de corps;" however, lack of regular communication has made for a number of misunderstandings between shifts.

d. Rules. The usual prohibitions for locked wards have been applied to ward 7; however, little is heard about them except at meetings which the charge nurse holds with aide trainees. Widespread consternation over missing "sharps," smuggled matches, etc. does not flare up on ward seven frequently. These prohibitions are not a problem for the ward, largely due to the chronic and well-trained patient population.

e. Staff attitudes. The personalities and backgrounds of the ward 7 staff are outside the scope of this study, except to mention that the majority of the staff would be considered to be of "custodial" outlook. It would be misleading, however, to imply by this that the dominant attitude is anti-humanistic as is suggested by the naming of Gilbert and Levinson's scale. (8, Chapter 3) Ward 7 aides tend to voice hopelessness for mental patients generally and ward 7 patients in particular. They tend not to seek out contacts with patients or actively encourage patients to interact, and occasionally drag their feet on changes which an administrator feels to be potentially therapeutic. Nevertheless, they almost universally have a strongly humanistic view of their patients. The staff seems sincerely concerned with the physical comfort of the patients and

speaks to most of the patients in a friendly, cheerful and personal way. The spirits of most of the staff members seem to rise and fall with changes they notice in favorite patients. One can scarcely communicate on paper the depressed tone of gloom or the genuine note of awe and happiness respectively in such typical statements as, "Poor Jim's really down the past few weeks," or "I heard Bill G ___ speak this morning. He asked me for a cigarette." Staff members are generally patient in dealing with the patients, and harsh, commanding tones of voice are heard only from some of the younger, less-experienced aides. The ward 7 staff seems to reflect the chronic atmosphere of the hospital, one of firm, quiet, and friendly helplessness.

B. The Hospital

1. Atmosphere. The red brick buildings of the 670-bed hospital, built in 1932, seem large and impressive in the formal architecture of that day. Surrounded by a generally well-kept lawn and shrubbery, they give an impression of strait-laced formality which makes running, cutting across lawns, and shouting seem quite inappropriate. The institution was originally constructed as a VA general hospital and domiciliary and was used as such until 1938, when it was converted into a mental hospital. It appears through the years to have retained something of the atmosphere of a domiciliary, being described by one psychology trainee as a hospital which "exudes chronicity." You feel it in the patients and you feel it in talking with staff. If you are around there for very long, you begin to absorb this feeling that

it has always been this way and always will be. The patients all look and act chronic, and the staff looks at them and becomes chronic; then the staff treats the patients in a way that sort of increases their being chronic."

For the most part it appears to the writer that relationships between staff members and patients are formal, professional, rather serious, sincere, and friendly in a quiet, reserved way. Among most of the staff and patients, one sees little playfulness. One feels expected to smile and say "Hello" to patients and staff, even though the acquaintance is extremely slight, but singing, whistling, and whole-hearted laughter are seldom heard. Profanity, "off-color" jokes, and gossip of a personal nature seldom occurs publicly in staff-patient interaction.

This chronic atmosphere is also reflected in the nature of discussions by staff members. Conversations dealing with work at the hospital center around current staff tensions and problems of administration almost exclusively. It is seldom that one hears detailed theoretical discussions and analyses of individual patient's behavior. Conversations about patients are usually brief reports of a patient's behavior, most frequently of humorous incidents.

2. Custodial Function. The custodial function of the hospital seems, in general, to be well carried out. Patients are adequately clothed, housed, and fed. Recreational facilities appear to surpass the demand by patients for their use; privileges are issued to those

patients who do not violate the formal rules, who are oriented, and are able to make themselves understood in conversing about simple, everyday matters.

During the course of the present study the goals and culture of the hospital have undergone some change. Coincident with the arrival of a new general manager, the changes most obvious to the writer have been the opening of a number of doors previously locked, freer granting of privileges and a consistent pressure on the staff to encourage the improvement of personal appearance of the patients.

3. Formal Social Structure. The social structure is formally a hierarchical one. The Manager, a psychiatrist, has full authority and responsibility for all phases of the hospital management. Under the Manager is the Assistant Manager whose background and responsibilities are similar to those usually associated with the title, "Business Manager." Below the Assistant Manager, authority is divided between the Director of Professional Services and the Registrar. These lines of authority are further subdivided as shown in the diagram of formal organization in Appendix B.

Recurrent problems associated with this structure consist, for ward 7, mostly of situations in which orders come to the Charge Nurse from one department and conflict with established procedures and rules based upon some other department's authority. The major effect of these conflicts, which focus suddenly on the role of ward nurse, is necessarily a disruption of routine behavior. There is temporary uncertainty and disagreement concerning relevant, immediate

procedures, and occasionally righteous indignation is voiced against the new order. Typically, in these conflicts, both parties have adequate rationale and authority to make a demand, and the solutions are through direct discussion and mutual agreement. Failing agreement, the matter is referred to higher authority by the ward administrator, who assumes an active responsibility for resolution.

One of the most difficult, recurrent problems for the hospital as a whole has been that of turnover of medical and nursing staff, resulting in a frequent shifting of personnel on all levels from one ward to another. In the past eight months the ward under study has been successively the responsibility of a psychiatrist, a psychologist, a senior psychology trainee, and currently, jointly by this psychologist and a psychiatrist. Many nurses, secretaries, and aides have been moved from ward to ward with greater frequency.

This movement seems to be universally resented by all levels of personnel, including the patients, in that it leads to the disruption of working acquaintanceships and the necessity of building new ones; however, in view of staff shortages, such movements on a fairly regular basis are considered a necessary evil. In spite of the frequent complaints, senior staff members, after serving a time on other wards, do return so as to form a continuing ward nucleus.

4. Physical Arrangement. On the 265-acre hospital grounds, there are fourteen permanent buildings and seven "temporary" buildings. Only a few of these are well known by ward 7 patients. Building No. 2 is the best known, ward 7 occupying its entire second floor. Above

ward 7 is ward 8, the "convalescent ward," one-half of which is open. Many ward 7 patients have lived on this ward in the past, and most of the patients appear to know something about it. If a ward 7 patient is transferred to ward 8, it is taken as a sign that he is getting better. On the ground floor of this building is ward 6, an "ambulatory geriatric ward." Privileged patients from ward 7 are frequently found at the coke machine in the central hall of ward 6, in the small Physical Therapy Department, or in one of the ward 6 dayrooms, although this latter is rigorously discouraged. Ward 6 is entirely open, and the patients generally consider it a "better" ward than ward 7. The patients on ward 7 are not able to verbalize any striking differences among these three wards, their physical layouts being very similar and the differences in procedures being only subtle.

About one city block's length away is Building No. 1. It is in the back of this T-shaped building that the patients eat all their meals. The main patient dining room has been recently redecorated and refurnished, giving it a light, airy, and relaxing appearance. It is apparently the crowding and routinizing of behavior in this large room which accounts for many of the disturbances there. Occasionally a ward 7 patient works in the large kitchen which separates the patient dining room from the staff dining room and from the main portion of the building. Ward 7 patients see most of Building No. 1 infrequently, entering only a short distance to attend Corrective Therapy in the junction of the "T" on the ground floor. Monthly the majority of

ward 7 patients are escorted to the second floor where they pass most of the administrative offices to reach the internal medicine and x-ray laboratories. On the third floor is ward 3, a closed geriatric ward where ward 7 patients who require a great amount of nursing care are sent. A few patients come to ward 7 from ward 3. There is a continuous small flow of patients in both directions between wards 7 and 4, ward 4 being the admission and observation ward. It is on the fourth floor of Building No. 1 and divided into two locked parts. Wards 4 and 8 are the most active wards in the hospital. On the top floor of Building No. 1 is ward 5, to which ward 7 patients are sent for continued medical attention, returning upon recovery from their physical ailments. Throughout all the wards in the hospital, the physical atmosphere is rather formal, drab, clean, but slightly disordered, and functional.

All ward 7 patients are familiar with the smaller and less formal "canteen." In this rather pleasantly decorated building they buy fountain items and hamburgers at the clean but crowded coffee shop (usually referred to in a more specific way as the "canteen"), visit the small, glittering and cramped store, or lounge in the music room and library upstairs. Weekly in the winter they attend movies and variety shows in the combination auditorium-gymnasium in the rear of the building.

Certain ward 7 patients weekly attend religious services in the small chapel about 100 yards behind Building No. 2. Housed in a quonset hut, it is decorated in the quiet and dignified air of a

church, so that even without the obvious standardized symbols such as the cross one would immediately recognize it as a place of worship. The rear of this building contains the special services offices which are visited by very few ward 7 patients.

The Occupational Therapy shops near the chapel combine into a friendly place where more individualized recreation and learning occur. Ward 7 patients use mostly the cheerful and somewhat cluttered O.T. clinic where such activities as ceramics, leather work, painting, weaving, and minor woodwork take place. This part of the shops is run entirely by uniformed women. Men in shop coats run the "Manual Arts Therapy" part of the shops, giving patients individual attention in the immaculate machine shop, at the printing press, and the large well-equipped woodworking shops. These "M.A.T. Shops" give an impression of a quiet, clean factory. Down a slight hill from the O.T. shops is the partially-mechanized laundry where a few ward 7 patients work. Near it are the power plant and warehouses.

Other buildings on the hospital grounds are located some distance southeast of the main hospital buildings, and are not visited by patients in the normal course of events. These include the nurses' quarters and guest house, physicians' homes, and farther, across the sizeable river which flows through the hospital grounds, a building housing male employees. Near that building is the hospital cemetery.

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C. The Community

Roseburg is a quiet town of 12,600 inhabitants, located in south-central Oregon. The climate is temperate, being very wet during the winter and very dry in late summer. The surrounding terrain is generally rough, mountainous and densely forested, timber being the major industry. Roseburg gives the impression of being a law-abiding place, populated predominantly by lumbermen in a low-middle economic bracket, who would ordinarily be considered steady, permanent workers. A recent decline in the lumber market led to the feeling on the part of many persons that the town was dependent on the hospital as a major source of income for the town's merchants. Perhaps this combined with the hospital's public relations policies to solidify a general acceptance in the community of the hospital and its patients.

D. Hospital in Relation to the Community

Approximately 80 patients obtain gate passes from the hospital each week end, and are apparently freely accepted in Roseburg public settings. Special groups of locked ward patients also visit various public settings in Roseburg. The hospital grounds contain a large recreational and picnic area known in the hospital as "The Grove." The grove contains picnic tables, fireplaces, a softball diamond, and tennis courts; further recreational improvements are

under construction at this writing. A nine-hole golf course separates the grove from the hospital buildings, giving a person in the grove a feeling of being somewhat away from the hospital. The citizens of Roseburg make extensive use of the grove. Recent development of a city park on land previously owned by the hospital has reduced public use of the grove. The softball diamond in the grove is the home field for the patient team, which competes with clubs from the surrounding area. The hospital maintains a small but active volunteer service. Volunteers participate in weekly dances (most frequently on the acute, admission, and convalescent wards), variety shows, card parties, and special holiday parties, to name a few of their functions. A street running through the hospital grounds and between the main buildings serves as a minor thoroughfare for local public traffic, although this is periodically discouraged by the hospital.

Routes through which patients may permanently return to the community include approximately 35 "member employees," who work in the hospital but who live rather independently of hospital rules governing patients, 12 men placed in foster homes, and 100 patients on "trial visit" status, which usually lasts nine to twelve months.

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III. ATTEMPTS TO STUDY PATIENT ENVIRONMENTS

A. Goals and Criteria of the Study

Almost immediately upon beginning to study the ward, questions concerning goals and methods arose. A straightforward chronological account of the development and changing of goals, criteria and methods for the study would be as confusing to the reader as it was to the writer; therefore, we will outline these aspects of the study separately.

1. Goals. From almost the outset of the study, the writer and his research supervisor at the hospital, Harold R. Dickman, Ph.D., agreed implicitly that the study should be focused primarily on the patients' world. However, there was also emphasis on the ward's social structure in that it was hoped that the writer might uncover information which would have immediate practical application in terms of helping the ward administrator (who was also the writer's supervisor), improve the therapeutic atmosphere of the ward. They rather quickly adopted the behavior setting, a concept with which both were already familiar, as the basic unit for description. As attempts to describe the behavior settings continued, the study progressively moved away from preoccupation with the social structure on the ward. One reason for drifting away from study of the social structure of the ward was that the writer found himself to be poorly qualified for such work,

both in terms of academic training and in terms of personality, being too reserved and passive to quickly gain the confidence of potential informants. The study then concentrated more and more on development of a satisfactory method, the method used by Barker and Wright to describe settings being rejected at first because the multiplicity of rating scales used did not seem to give sufficiently detailed results to be useful in a study of such small scope. The methods outlined in Luchins' hospital analysis manual, (13) although a major stimulus for the study, were also rejected because of the great expenditure of effort required for completion. It was during this long period of re-defining goals toward development of techniques and attempting different approaches that some major criteria for the resultant techniques developed.

2. Criteria.

a. Economy. The hospital had no special funds available for such research and most easily tolerates research which can be performed in the framework of regular routines. Staff time available for the study was limited to (a) about one day per week of the writer's time and (b) the transcribing of narrative observations by a staff secretary. As this study progressed, a broader economic criterion evolved-- that methods produced by this study should make it economically feasible to survey all the behavior settings in the hospital for either intra-hospital comparisons or for inter-hospital comparisons.

b. Pertinence of findings. The study should produce data which could have practical importance for the therapeutic and custodial goals of the hospital. It was due to this implicit criterion that the particular methods published in "Midwest and Its Children" were, for the most part, rejected at first, and naturalistic, participant observation was relied upon heavily.

c. Comparability of findings. The method used should be of such a nature that there could be rather precise comparisons drawn from one setting to another on a level which might give new insights to the busy ward administrator who sees most of the settings only once in a while, yet also be manageable in large-scale comparisons of hospitals, each containing hundreds of behavior settings. It is felt that this criterion implies a flexible level of detail in description.

d. Theoretical orientation. There was strong agreement among the writer and his advisors that any method developed should be as theory-free as possible. Complete avoidance of all levels of theory is, of course, impossible, especially in the selection of which variables of a behavior setting to record. Nevertheless, we will consider methods developed to be successful to the extent that they may be found useful to persons with widely divergent points of view.

e. Non-disturbance of the therapeutic process. We feel that any method which would seriously disrupt the functioning of routine procedures on the ward or be seen as major threat to patients or staff is not appropriate for study of mental hospitals.

B. Concrete Attempts to Study Behavior Settings Available to Patients of Ward 7

Along with the changes in goals of the study and the development of criteria, several methods were explored. We relied on some of them rather heavily, and several of them were used simultaneously. We explored the following methods: a) informants, b) records, c) "participant observation," d) "insightful observation," e) "narrative observational records," and f) "checklists." Because none of these methods provided us with sufficient data meeting the criteria discussed above, we attempted to use the behavior setting survey developed by Barker and Wright, finding it a satisfactory basic method of study. Because the previous chapter and our evaluation of the Barker and Wright techniques are based upon information gathered by these six methods, they will be discussed in this section.

1. Informants. Perhaps the most obvious technique at the start of a study is the use of informants. These are widely used sources of information in most hospital analyses. The writer, of course, was quite unfamiliar with the ward at the outset and felt that he could not at that time trust himself to accurately see what was "really going on." It is frequently pointed out that aides and patients usually know more about the hospital than an outside observer, and more than a ward administrator can expect to learn quickly. For these reasons the writer set out to gather interview data. The results were discouraging. Information

from aides, while accurate so far as it went, was typically insufficient. Interview material was so obviously inadequate that none was recorded. These illustrations are imaginary "typical" interviews.

Interviewer: How about Corrective Therapy, what do they do down there?

Aide: Oh, not much, they ride bikes and play ball.

Interviewer: Anything else?

Aide: Well, there's some other things, too; they've got sort of a gym down there. I don't go all the way in very often; all I do is take the boys over and bring them back. Why don't you go over and watch them some day?

Interviewer: Yes, I plan to. How do the patients feel about it?

Aide: Oh, they seem to like it pretty good; now old TCL, they say he uses the punching bag quite a bit, and he seems to be a little less irritated when he comes back, and C _____ always seems to be pretty eager to go down.

The aide's suggestion was, of course, an obvious course of action, which was followed. In the meantime the writer spoke to a few of the more talkative patients.

Interviewer: I hear you're on the outside detail.

Patient: Yeah, that's right.

Interviewer: Well, tell me, what do you do on the outside detail?

Patient: Go out and work, or sometimes we don't do anything.

Interviewer: What sort of work do you do?

Patient: Not much in the winter. Cuttin' logs right now.

Interviewer: Cuttin' logs?

Patient: Yeah, down by the river.

Interviewer: Is there anything else you do?

Patient: Went to the canteen yesterday.

Interviewer: What do you think of the outside detail?

Patient: It's okay.

Interviewing was, of course, more satisfactory when staff members directly concerned with a behavior setting were interviewed, but either gave insufficient detail or was lacking in comprehensiveness.

Realistically, one could expect interview material to produce only two sorts of data of value for such a study. First, one might expect to get some indication of the atmosphere of a setting from the point of view of the informant, and secondly, one might expect to learn specific details such as the time of the setting and details of procedure.

Few patients or staff articulated about the atmospheres with a wealth of detail or illustration. Almost universally, there seemed to be either a mild liking or approval of almost all settings, or a pointedly noncommittal attitude, both types of response coming from both patients and staff.

Better results could be gained toward the second objective, especially in terms of clarifying details of procedure from the staff's point of view. While this sort of information was not usually recorded, except as it appears in the narrative records, most of the writer's understanding of the ward operation was gained through the use of informants dealing directly with the setting.

2. Records. Records, although giving little information, were used extensively in the early parts of the study. It was mostly

through reference to the "Ward Master Schedule" and the "Weekly Personnel Assignment" that the writer learned of the existence and times of operation of behavior settings involving ward 7 patients. Both of these records consist of schedules of events, and both are incomplete. The "VAVS (volunteer service) Weekly Supplement to Ward Master Schedule" was found to be a useful source of information concerning the existence of settings open to interested patients throughout the hospital. But, many settings are not included on any of these records, and use of informants was essential to gaining information concerning the existence of settings.

Ward 7 keeps records of the nonprivileged patients participating in all activities off the ward. While these records were not used extensively in the present study, they can form a useful adjunct to specific studies.

Such records as the "Nurses' Notes" and the "24 Hour Report" were found useful in a general way in terms of indicating settings in which important "incidents" take place. From this it was learned that the setting, "Walk to Meals" is important in terms of offering a possibility for closed ward patients to "elope," as a place for fights to occur, and as a place for aides to learn of the existence of growing disabilities among patients. The "24 Hour Report" also indicates the dining room as a location for difficulty with patients. By following up notations on the "24 Hour Report" with interviews of staff and patients, it is possible to learn more about the operation of the ward, and how certain settings are reacted to. For

example, in following up the report, "Patient NK engaged in an altercation with patient OB, incurring a black eye. There was no indication of other injury," it was learned that patients missing the toilet in the latrine is habitual behavior with some patients and is very displeasing to some other patients.

At best, existing records can offer little more than an enumeration of settings and clues for further investigation. As of March 1, 1958, a list of potential behavior settings was compiled on the basis of records, informants, and more or less random observations. This list is presented in Appendix C.

3. Participant Observation. "Participant Observation" is used quite widely, not only in hospital analyses, but in many other types of research as well. The term is usually taken to refer to the fact that the observer participates in whatever activity is going on; however, it is apparent that varying degrees of involvement in the settings studied are referred to by the term, "participant observation." In this study we shall follow Schwartz and Schwartz in distinguishing between "active" and "passive" participant observation. (19, pp. 348-349)

By "active" participation we mean that the observer becomes involved in the setting, rather freely interacting with those observed. Probably the best example of data gathered in this study by use of this sort of observation is to be found in "Laboratory" in Appendix A. "Passive" observation seems best described by Schwartz and Schwartz' statement that the passive observer attempts

to go about his task much as he would if he were observing through a one-way screen. (19, p. 348) Supplementary to Schwartz and Schwartz' analysis of problems of observing on a hospital ward, we should like to add a few points made clear to us in the present study.

We feel the most important of the values of active participation is the fact that in direct and "real" participation in the setting one obtains a deeper involvement in and "feeling for" the people in the setting. One learns much more quickly the subjective nature of the restrictions which the setting may impose, as well as the nature of the satisfactions offered by the setting. The writer, acting chiefly as a "passive" observer in almost all other settings, found himself highly stimulated during the events composing the observation "Laboratory." This was one of the first times that he took on an active position in a ward setting. The result was difficult to describe as anything other than a group of feelings about the people in the setting. Immediately following the assumption of an active role, there grew a strong feeling of what sorts of people these patients were—a feeling which was seldom if ever achieved by simply watching the patients from the position of a passive onlooker. Suddenly the potential danger and possibilities of uncooperativeness stood out in sharp contrast to the actual orderliness and cooperativeness of the patients in the setting.

A second advantage we found for the actively participating observer is that of understanding the workings of a setting. For example, at meals the passive observer may easily miss the fact that two of the

slowest eaters are brought up to the dining room by a different route than the majority of the patients so that, although they are among the slowest walkers in the walk to meals, they are the first ones to be served and therefore stand a chance of finishing meals along with the rest of the ward. To the passive observer their appearance in the dining room before any patients had entered the main door was simply confusing, but all the aides present knew just what was happening and why.

The writer found it helpful to submit some of his narrative observational records to aides for corrections. The corrections given were not in terms of the concrete behavior observed, but in terms of the mechanics of the setting, i.e., the "behind the scenes" activity.

The active participant stands a greater chance of influencing the behavior in the setting by his own behavior. In the behavior setting "East Dayroom" an observer who believes in and enjoys contact with the patients would see himself as simply following the formal instructions for staff members if he spent three-fourths of his time interacting with patients. It might take quite a while for him to realize that in spite of these formal instructions, staff members on the ward very seldom go out of their way to instigate social contact with the patients. Thus the actively participating observer would be observing behavior which he had created and which was far from a representative sampling of usual behavior.

This, as pointed out by Schwartz and Schwartz, is a disadvantage attributable to the personal qualities of an observer using this method rather than to factors inherent in the method.

A second disadvantage of active participating is the physical difficulty of actively participating and taking notes.

The writer's place on the ward was an alternation between active and passive participation, a result of his combined service and research role. At those times when narrative records were being written, the observer was almost always an inactive participant (except where noted in the record), and patients generally came to recognize this, approaching the observer for conversation or for cigarettes and lights noticeably less often when he was busy with a clipboard than when he was not. When the observer was not actively writing an observation, he freely responded to patients who wished to instigate social contact. At times the observer began to feel "out of touch with the patients" (manifested most concretely by inability to associate names and faces) then he would devote time specifically to interacting with many patients, instigating social contacts.

4. Insightful Observation. This somewhat awkward phrase used here to indicate one form of data which the participant or nonparticipant observer may produce. Here the word "insightful" is used in a way suggested by the third meaning of "insight" appearing in English and English. (7, p. 264)

... the process by which the meaning, significance, pattern, or use of an object or situation becomes clear; or the understanding thus gained.

It is by this term that we would designate the insightful observations of Piaget, to mention only one of many outstanding observers noted for

producing data of this form. The process may be described as the fruitful combination of reliably observable facts with a liberal dosage of insightful interpretation and insightful selection of facts to observe.

While the results of this process may be severely criticized as being subjective, idiosyncratic, artistic, unreliable and sometimes unrepeatable, it is perhaps because of these very aspects that they are often found to be of great value in terms of understanding the phenomena observed. Usually in this sort of observation, an analysis of the phenomena studied is implied, or even directly stated. Examples of our use of this form of data are to be found in the "summaries" in Appendix A of this paper.

Insightful observation may range from the reporting of objective facts considered pertinent, to the reporting of subjective impressions.

We feel that this form of data has a definite place in any description of the patient's environment, as the most comprehensive listing of objective facts, with a minimum of interpretation, fails to communicate some of the essential aspects of a setting. Nevertheless, we realize the inherent difficulty of using it for comparative purposes. Except on a purely impressionistic basis, there seems to be no clear-cut way of comparing this form of data from one setting with similar data from another setting. This form of observational data was included in the study in an attempt to communicate some understanding and some of the feeling of the settings observed; however, we felt that a more systematic form of data was necessary in order to compare settings on a relatively large-scale basis.

5. Narrative Observational Records. The majority of the data collected in this study was in the form of the narrative records appearing in Appendix A. These will be found by the reader to be highly variable in terms of nature of content, level of detail, and systematization.

Initially, we had high hopes for the value of such data. We hoped that with the aid of such data one could determine the sorts of demands that are made on patients and the satisfactions accruing from the settings. Such data, it was felt, could also give a picture of the atmosphere of a setting, as well as some indications of the dominant personalities influencing a setting. It was felt that such data, if interpretation were held to a minimum, and only the readily observable features of behavior observed, would also be found to be reliable for two or more observers viewing the same settings.

It was only by trying that we were able to learn of its several limitations. The procedure used in arriving at the more detailed narrative records was for the observer to enter the setting with a clipboard of blank paper. He would proceed to try to take notes as rapidly and briefly as possible on everything which he saw and heard until the end of the setting or the time at which the observer left the setting. These notes were then used as a basis for dictation of the narrative record. It was found in almost all settings to be impossible for the observer to make note of everything which he saw and heard, let alone the unknown amount of behavior which the observer did not see or hear. Success in recording the behavior in a setting

depended in part on the population of the setting and in part on the variety of behavior and the rapidity with which each individual in a setting changed from doing one thing to doing something else.

There are other limiting aspects of narrative records, however, which are traceable more clearly to the observer and to the nature of this form of data. Perhaps the strongest limitation implicit in the narrative observational record is the selectivity which must unavoidably occur. Initially, the writer thought the records would be comprehensive, and selectivity would not arise as a major problem. It was only gradually, as a number of records were produced, that the writer realized the inevitability of selection. The observer misses one patient's behavior because he is focusing on another patient. This sort of selectivity is due simply to the biological requirements inherent in looking and writing.

Another form of selectivity occurs simply because of the continuing nature of some sorts of behavior. Continuing behavior is usually not recorded explicitly because of insufficient time.

The difficulty with this form of data, which appears comprehensive, is that it subtly leads the reader to assume that it is complete, and to assume that what is not mentioned has not occurred; and that what is mentioned has occurred as frequently as it is mentioned. Such an assumption is, of course, entirely misleading. If a reader of this sort of data wisely avoids this assumption, he will be confused, wondering to what extent the behavior mentioned in the record is representative and to what extent behavior has occurred which is not mentioned in the record.

Clearly some explicit and systematic way of selecting observations within any one record is necessary. Toward this end, we attempted to select smaller portions of the settings. This attempt was relatively unguided, and the basis for selection was not immediately clear. It was only after these observations were completed that the writer recognized the basis he had tended to use for selection. The selection tended to occur in terms of subsettings. As noted in Chapter I, many behavior settings can be naturally subdivided into smaller "subsettings," and these in turn can be subdivided into still smaller subsettings. By this procedure, it is possible to break the large unit setting which, in the cases of "Lunch" or "Getting up and Dressing" are impossibly large to observe all at once, into their component parts.

A further difficulty with narrative records is the difficulty in making use of them. For gaining an intuitive grasp of the nature of a setting, they seem to have considerable usefulness; however, for widespread comparative purposes, we found no clear-cut way of analyzing them. This difficulty seems to be chiefly related to the limitations mentioned above. One could, of course, take pains in writing narrative observations to mention certain quantities, but the mere act of counting or timing impedes the major value of a narrative observation, that of a running description, in concrete and meaningful terms of the behavior observed.

A final and crucial disadvantage for studies devoted to comparisons on a large-scale basis, and to studies to which limited effort can be devoted, is that of the amount of work required to produce a

thorough set of narrative observations. The narrative observational records required not only the observer's time and attention during the period of observation, but the time necessary to dictate his observations (on a dictating machine), the time of a typist to transcribe the dictation into readable form, and some time spent in correcting errors due to the process of dictating and transcribing. It was in this process that the writer learned that most things happen "in less time than it takes to tell it!" It often took two hours to dictate a one-hour observation even if many details of behavior in the setting were not recorded. It became apparent that this method of data collection is distinctly uneconomical for large-scale comparative studies.

6. Checklists. Due to a growing uncertainty about the quantitative aspects of the behavior which was being observed, we considered the use of checklists; however, we gave this possibility rather meager consideration. If we were to hope for anything like comprehensiveness in our data, checklists would have to fill a minor role. To obtain a comprehensive description of the patients' behavioral environment by the use of checklists alone would seem to require constructing of checklists too elaborate to use. The occasional use of checklists and checklist-like observations (such as counting) is considered to be valuable only insofar as they are needed to clarify certain aspects of various settings; for instance, the number of patients approaching nurses' and secretaries' doors, and the number of patients in the Dayrooms were gathered with the help of patient MX, partly for the purpose of clarifying changes in population of those settings.

IV. ILLUSTRATIVE USE OF THE BEHAVIOR SETTING SURVEY

A. Introduction

Because of the limitations for our purposes found in the methods discussed in the previous chapter, we made use of the Behavior Setting Survey developed by Barker and Wright. (1) After attempting a survey on the ward under study, we became convinced that it is a very useful basic method.

This survey was performed by the writer during the week of June 23-27. It was decided that this was an appropriate time to make the survey as on June 26, 1958, the west end of the ward was opened. As expected, this fact as well as the granting of some 60 privilege cards, the eventual formal alteration of schedules due to the increased number of privilege patients, and the opening-up policy, markedly changed the general character of the ward as a whole, as well as details within parts of the ward.

As the writer did not feel that he was yet ready to apply the method to the whole ward, due to incomplete familiarity with both the method and the ward, there was no rigorous attempt to verify ratings and estimates of population and occupancy time. Furthermore, only twelve settings and six subsettings of the unit settings open to ward 7 patients were rated. In short, the data presented in this section is to be regarded by the reader as potentially inaccurate, and as

definitely incomplete. Nevertheless we feel that this survey gives a good illustration of the method as applied in a mental hospital.

B. Method

The general method used by Barker and Wright was copied as closely as the writer's relative unfamiliarity with the method permitted. Settings were rated according to the writer's accumulated knowledge of the settings, supplemented in some cases by such data as had been collected before that time.

Following the methodological framework of Barker and Wright, the following estimates and ratings were made by the writer. No reliability checks were made.

1. Population, according to population categories as follows:

Staff: Doctors and professional workers
 Nurses
 Aides, experienced
 Aides, trainees
 Clerical workers
 PM&R Personnel
 Industrial personnel

Patients: Member employees
 Privileged patients
 Non-privileged patients
 Working patients
 Non-working patients

2. Duration of each setting, in terms of number of hours per week.

3. Occupancy time (population times weekly duration of setting).

Ratings:

1. Penetration zone by population category.

2. Action patterns (with abbreviation in parentheses).

Aesthetic	(A)
Business	(B)
Earning a Living	(EL)
Education	(Ed)
Government	(G)
Nutrition	(N)
Orientation	(O)
Personal Appearance	(PA)
Philanthropy	(PL)
Physical Health	(PH)
Recreation	(Rc)
Religion	(RI)
Social Contact	(SC)
Waiting	(W)

3. Behavior mechanisms.

Gross Motor Activity	(GMA)
Talking	(Ta)
Manipulation	(Ma)
Thinking	(Th)
Affective Behavior	(AB)
Looking	(Lo)
Listening	(Li)

C. Variations from Original Techniques

1. Intentional Variations. There were a few intentional variations from the techniques used by Barker and Wright.

a. A complete list of potential behavior settings open to ward 7 patients is presented in Appendix C. This list was compiled on the basis of records, informants and casual observation. Presentation of that list to the ward administrator, the charge nurse, and a lead aide resulted in their agreement that this exhausted the possibilities of hospital behavior settings open to ward 7 patients at that time. Except for Dayroom subsettings, the settings chosen for this

survey were representative of those ward 7 settings which with little doubt met the criteria of independent settings. By selecting settings in this way, we avoided the effort required in elimination of non-settings and in determination of interdependence of settings. These tasks would have to be done and ratings made on each independent setting in any survey purporting to be complete.

b. The second was to indicate occupancy time in terms of weekly occupancy time rather than in terms of yearly occupancy time as Barker and Wright had done. This was due in part to the frequency of change of hospital settings, which we felt might not be adequately represented on a yearly basis, and in part to the fact that the writer had not witnessed a full year of the activity and there appeared to be no records to indicate the changes in settings over a year's time.

c. Another intentional variation in technique was to use a widely different system of classification of population which, it was felt, would be more appropriate to the social structure of the hospital. The population categories used here are categories which are universally recognized in the hospital and which are readily determined, usually by observation, or through assistance from informants more familiar than the observer with the particular people inhabiting the settings.

d. Another intentional variation was the addition of the action pattern, "Waiting." (We are indebted to Harold R. Dickman, Ph.D. for this suggestion). "Waiting," as used here, implies waiting for some specific, readily determined goal such as waiting in line for

medications, waiting at tables in the dining room for an aide to signal the time to leave, and waiting in line for showers. It does not include the dayroom activity which gives rise to a vague impression that these men are sitting there "waiting for something to happen," nor to a patient sitting in the sun on the canteen steps, possibly waiting to see his doctor come for a coffee break. In these cases there would be little agreement among observers, or perhaps even among participants, as to whether the persons were in fact waiting for something, and if so, what.

e. The behavior mechanisms "Looking" and "Listening" were intentionally rated in terms of a direct global impression or assumption instead of by estimation of the reductions which would be caused in action pattern ratings by blindness or deafness. It seems that the vast majority of behavior engaged in by ward 7 patients does not require sight and hearing. For instance, patient BN has been officially declared totally deaf; patient XR has visible cataracts on both eyes; patient NW wore bifocals so dirty that the writer could see only dim forms through them. All three patients were able to satisfactorily adjust to the daily routines of the ward. In view of this observation, it was felt that the calculating of reductions of action patterns due to blindness or deafness would result in ratings for looking and listening which would under-emphasize the actual use of these mechanisms.

f. The only technique relevant to social atmosphere, developed at Midwest was the "Social Weather" rating system developed

by J. E. Simpson. (22 and 1, p. 148-151) This technique involves the analysis of specimen records and was considered to be too time-consuming for inclusion in this survey.

2. Unintentional Variations. Unintentional variations in technique are less easy to describe.

a. The first has to do with penetration estimates. In this illustrative survey, an attempt was made to estimate the average penetration by each of the different population categories. At times, the writer was so impressed by the variability of certain settings that he did not follow his plan of indicating averages, but indicated the maximum and minimum for each estimate. Both approaches are contrary to that of Barker and Wright, who estimated only the maximum for each setting.

The results presented in Table 1 indicate maximum penetration of staff members and patients under the heading, "Hi zone" and the estimated average or usual penetration under the heading, "M-zone."

b. Aesthetic was rated more broadly than defined by Barker and Wright. (See Chapter I of this paper). We were in accordance with the Midwest techniques in not rating janitorial functions as Aesthetic; however, in the setting, "Outside Detail," we probably rated Aesthetic participation much higher than would have been done in Midwest.

c. The action pattern "Personal Appearance" is defined by Barker and Wright as including "wearing uniforms or symbolic clothing." (p. 73) We neglected the fact that all aides and nurses

wear uniforms, and that all staff members and some patients can be seen to be wearing key chains. (The difference is that the key chains worn by patients do not have keys attached). Neglect of this aspect of Personal Appearance resulted in a general underrating of Personal Appearance ratings in this survey.

d. Social Contact is defined by Barker and Wright as ". . . visiting, being pleasant, having fellowship, having interpersonal contact." (p. 76) In studying behavior settings occupied by a normal population, one would generally have little difficulty in determining the amount of Social Contact. In the normal population of "typical" Americans, Social Contact usually involves some verbal communication, the content and tone of which indicates that it is Social Contact. In the ward 7 population, the distinction between Social Contact and other possible goals of activity is much less clear. As mentioned in Chapter II, much of the Social Contact on this ward is non-verbal and quite brief, Social Contact of a normal sort being in fact rare among these patients. Because the observer's frame of reference for this action pattern was markedly changed in the search for whatever Social Contact there might be on the ward, this action pattern has probably been consistently overrated in this survey, as compared with Midwest frames of reference.

e. For the behavior mechanisms, there was a slight but general overrating of behavior mechanisms in which participation was rated zero (less than 10 per cent of the total person-hours), but the tempo and intensity subscales were rated above zero nevertheless.

This, it was later learned, was not done at Midwest where the rule was followed that if a behavior mechanism received a rating of zero on the participation subscale, the tempo and intensity subscales were not rated.

f. "Affective Behavior" was grossly overrated in so many cases that we omitted it from the data. The nature of the variation was that in this survey, Affective Behavior was rated on the basis of the writer's assumption about the setting rather than on the basis of the overt or explicit affective behavior actually exhibited in the setting. Certainly on a ward comprised mostly of Chronic Schizophrenics, who are literally known by their "flatness of affect," one would not expect to find overt Affective Behavior in any substantial percentage of the person hours. We erred by responding to habitual facial expressions, "sullen" appearances, and to assumptions about the settings.

g. For the behavior mechanisms "Looking" and "Listening," we made the error of rating tempo and intensity, although haunted by a gnawing feeling of vagueness while doing so. This, we later learned, was not attempted at Midwest in view of the unanswerableness of the question, "How fast is that person looking and listening?" and the difficulty in objectively determining the answer to "How intensely is that person looking and listening?"

D. General Description of Settings Rated

The twelve unit settings and six dayroom settings listed in Table 2 may be briefly described as follows:⁵

1. Dayroom, East.* General setting: This is "Home base" for the east end. The ward is locked, and no more than five of these patients had privilege cards before June 1958 during daytime hours. Patients' movements are limited to the dayroom, hall, latrine and end porch; the bedrooms, clothing room, washroom, and front porch are kept locked. The dayroom is often thought of as a dirty place, both the patients and the furnishings usually being dirty. Although there are adequate lighting facilities, the usual impression is that this room is somewhat dark. This impression seems related to the dark color of the furniture, to the fact that the room is located more on the north end of the building than on the east, and to the brownish color of the walls and ceiling. The furniture consists mostly of heavy wood and plastic, soft chairs and couches. Other behavior objects include wooden tables the size of card tables, several straight wooden chairs, checkers, playing cards, magazines, newspapers, books, a television set, a small radio, a small record player, two brooms, a dustpan, a wastebasket, and numerous ash trays and ash stands. The majority of the patients in this dayroom sit almost continually in one place throughout the day, occasionally going to the latrine and going out whenever ordered and accompanied by

⁵Settings marked with an asterisk (*) are described in more detail in Appendix A.

an aide. Some lie full length on the available couches, and a few sit or lie down on the floor, a practice which is routinely discouraged by the staff. Typically, there are two to eight patients who continually pace through the center of the room, which, because of the pacing, has been called "The racetrack" by the writer. This setting reminded one visitor of "an old man's hotel," because of the ubiquity of old men quietly sitting. Another visitor was reminded of a "bus station," by the combination of sitting, pacing, and general noise level. The amount of activity varies with population and with time of day, the setting being more active when patients first return from meals. Nevertheless, the form of activity remains approximately the same throughout the day and evening. East dayroom subsettings follow.

a. Noon Medications. Immediately after lunch every day, the nurse, usually accompanied by an aide, enters the dayroom with a tray of pills, solutions and ointments, which are given and/or applied to ten to fifteen patients. Most of these medications are not psychotherapeutic drugs and, therefore, the action pattern, Physical Health, is rated highest. Patients are called to the "doorway area" by aides, a few coming spontaneously. Nurses and aides speak cheerfully to the patients in this subsetting, more time being devoted to Social Contact than to Physical Health. This subsetting occurs in the context of the general dayroom behavior setting, whose nonpsychological milieu and standing behavior patterns form a background for "Noon Medications."

b. Doctor's Rounds. The ward physician or ward administrator, accompanied usually by the charge nurse, the lead aide for the day, and the aide covering the dayroom at the time, tours the dayroom saying at least, "Good morning" to each patient. This is a time for patients to bring up anything physical or otherwise about which they wish to speak to the doctor and for the doctor to mention to individual patients anything necessary. There are no general announcements made to the entire group of men; usually, however, all patients within ten or fifteen feet of the doctor are watching him and attending to him. There seems to be a rather high positive correlation between intensity of attention to the doctor and physical proximity to him. Again this subsetting occurs within the context of the general "East Dayroom" behavior setting.

c. Haircuts. Once every three weeks two barbers employed by the hospital give haircuts to ward 7 patients, cutting continuously for about three hours. Two straight chairs are placed approximately at the juncture of the "doorway area" and "recreation lane." An aide is responsible for bringing patients who need haircuts to the barbers, and attending to brushing stray hairs off the patients when they have left the barbers' chairs. All patients are required to have their hair cut. Insofar as 74 patients get haircuts here, the population estimate may look strange, but only two or three patients participate in the subsetting at once.

d. Preparing for Bed. Nightly, over the period from about 8:00 p.m. to 10:00 p.m., patients take off their clothes, piling

them on or under their "own" chairs, put on pajamas if they desire, and shuffle off to bed. The beginning of this setting is marked by the time at which aides open the bedroom doors and the end is marked by the official bedtime. Population estimate and ratings for this sub-setting are in error, due to failure to recognize the fact that this subsetting and the general dayroom setting co-exist within the same physical and temporal space. Actually three settings are readily discriminated here, "General Dayroom," "Preparing for Bed," and "In Bed." There is a rather regular movement of patients at the rate of about 35 patients per hour from the setting, "General Dayroom" through the setting, "Preparing for Bed" into the setting, "In Bed," with occasional backtracking where, for instance, a patient has removed his shirt and one shoe and stocking, but then watches television for half an hour before returning to the process of undressing.

e. Gospel Singers. Every Friday morning a group of volunteers (categorized as staff) enter the East dayroom for one-half hour with a piano and one guitar. They are frequently accompanied by one or two privilege patients from another ward, who move the piano and participate in the singing. Volunteers carry mimeographed sheets with the words of gospel songs, handing them to those patients who desire them. Although there are 103 or more patients in the east end of the ward at the time (shaving occurs at the same time), generally no more than ten or twelve patients actively participate. They cluster in an approximate circle of twelve feet in diameter about the piano while singing. This setting occurs within the

Personalized

context of general east dayroom activity which is increased by the inflated population for shaving. Because the singing of the group of volunteers and patients is loud enough to be heard throughout the ward, all patients in the dayroom are included in the population of this subsetting as audience (Zone 2) whether they appear to be actively attending or not.

f. Dressing.* This, like "Preparing for Bed" is another case of a transient setting not recognized as such at the time of the survey. Patients are awakened in the bedrooms by the aides. They usually go first to the latrine, and then walk drowsily into the dayroom where they find their clothes. The majority are able to completely or almost completely dress themselves; however, approximately 35 patients need some assistance from the aides, who are also quite busy urging patients out of bed, and finding clothing for patients who are unable to find it themselves. When each patient is dressed, he is allowed to smoke, and enters the setting "General Dayroom." Frequently patients enter "General Dayroom" behavior patterns before finished dressing, remaining thus until urged back into setting "Dressing" by an aide. About 6:45 a.m., "luxuries" consisting of cigarettes, pipe tobacco, and candy bars are passed out by an aide. This constitutes a separate subsetting, but was included here, accounting for the Nutrition rating.

2. Showers, East End. This setting overlaps with the setting "Preparing for Bed." About 7:30 p.m. on Tuesday and Wednesday nights, an aide unlocks the door of the tiled washroom and turns

on the showers. The setting begins with approximately 25 patients in the room, waiting in line for a shower, and before long, up to eight or ten patients are drying themselves in the washroom. Almost all patients wash and dry themselves, and most arrive at the washroom voluntarily. As they emerge from the shower stalls, they are given a towel by the aide and checked off the list of patients. Toward the end of the setting another aide helps to get negligent patients into the washroom, and three or four patients who need direction in showering are helped by the aide. The turnover of patient population is regular and of such a nature that the setting gradually decreased in population. Although the scheduled time for showers is 7:30 to 10:00 p.m., the process is frequently completed by 9:00 p.m. For these reasons, the occupancy time appearing in Table 1 is overestimated.

3. Shaving, East. From approximately 10:00 to 11:30 a.m., the West end of the ward is emptied into the East end of the ward, and two barbers and two privileged patients from Ward 6 engage in shaving those men who do not have electric razors and who do not shave themselves. In addition, they provide locked safety razors to those men who shave themselves, but do not own electric razors. This setting occurs in the East end washroom and is generally quite crowded. The ward 6 patients prepare the faces for those men who are to be shaved by the barbers, six of these patients being seated at a time. There are at all times two patients being shaved by the barbers, and most of the time five to eight patients are shaving themselves. An aide

stands near the door with a towel to wipe off traces of lather from patients leaving the setting.

4. Shaving, West. This is self-shaving by the West end patients who own electric razors. An aide opens a cabinet in the West washroom where the electric razors, shaving lotions, etc. are kept. Patients enter, pick out their razors, and shave. Usually there are not more than four or five patients in the setting at one time. It is not known why the Personal Appearance rating of this setting varies from that of Shaving, East.

5. Meals. Meals are taken by all ward 7 patients in the main patient dining room. The kitchen phones the ward when the dining room is clear, and patients from both ends are counted out of the ward through the center stairway. The group of 140 patients then is escorted by at least four aides to the dining room where the patients wait on an indoor stairway before being sent, 20 at a time, into the serving line. In the serving line, patients pick up trays and silverware, and such food as they desire. An aide watches to see that patients with special diets get them, and another aide sits at a table near the serving line to check off each patient's name as he comes through the line. On leaving the line, patients go to the tables where they sit three or four to a table. Most patients eat in a "normal" fashion; however, some toy with their food, spill it, eat with their fingers, etc. While the later patients are being served the earlier patients are generally finished eating, and wait

for a considerable length of time. When all are finished, an aide calls "Ward 7" and almost all men move to the stairway and out onto the walk, back to the ward. These ratings are for the activity within the dining room only. One population estimate indicates the entire dining room, the other indicates only that part of the setting occupied by ward 7 personnel. Although there are usually patients from two wards in the dining room at once, there is little ward to ward interaction. As population estimates indicate, the room is quite large. It is newly redecorated with bright yellow walls and chrome and plastic furniture.

6. Physical Therapy. This setting occurs in a small, but well-equipped room on the first floor of Building No. 2. Equipment includes a stationary bike, a heat cabinet, whirlpool tub, scotch douche, infrared and ultraviolet lamps. The physical therapist in charge of the room is in fact a single leader; however, most of the time he behaves as an active functionary. For some time there have been about three groups of about nine patients, each attending this setting three times a week.

7. Occupational Therapy.* This is part of a large setting distributed throughout the PM&R building, exclusive of its offices. This rating covers only those subsettings included in what is formally known as "Occupational Therapy" and "Educational Therapy." Because of the complexity of these settings and the lack of rigorous observation of them, these ratings are probably grossly inaccurate. The physical location consists of a quonset hut joined to form a right angle with a U-shaped, permanent brick building. Activities in these

settings include formal teaching and self-teaching of English, mathematics, typing, and other subjects, usually at the high school level; leathercraft, ceramics, painting, minor carpentry, weaving, etc. Most of the activities are aesthetic and considered largely recreational. Although most of the work is individual, Occupational Therapists spend almost all of their time in direct patient contact, a large part of which is purely social contact. In addition, there are subsettings of "Occupational Therapy" known as "Coffee Hours" in which the entire accent is on Social Contact. Because of these (which were not observed), Social Contact is probably underrated on Table 3. The physical setting is bright, cheerful, and slightly crowded.

8. Corrective Therapy. Two groups of ten patients each attend "Corrective Therapy" in Building No. 1 daily, Monday through Friday. In this setting, they variously punch a punching bag, "ride" stationary bikes, use a rowing machine, wall weights, and play various forms of catch. The Corrective Therapist assumes the stimulation of social contact as one of his functions; however, it is the most withdrawn patients who are sent to this setting.

9. Outside Detail. (In cemetery) Several wards have outside details. Each ward's outside detail is responsible for a separate section of the hospital grounds, ward 7's area of responsibility being the hospital cemetery and a smaller section of lawn near it. The outside detail is considered a part of the hospital's industrial therapy department; therefore, the men working on it are rated as

engaged in Earning a Living and acting as active functionaries, although the former is not strictly true. The outside detail also engages in a number of other activities, including bus rides, fishing trips, and coffee hours at the O.T. shop; these are considered separate subsettings. At the cemetery, the patients mow and rake the lawn--an Aesthetic activity which was rated as such. The relatively high social contact is mostly nonverbal in nature, such as several mowers mowing in a spontaneous group, and rakers and basket carriers cooperating in their jobs. In Midwest, this form of social contact might not have been rated so highly. The total time this setting occurs is probably over-estimated, due in part to neglect of its other activities, and in part to inclusion of West end patients.

10. Group Therapy (on ward). During the time prior to the survey a small group of patients engaged in group therapy with the ward administrator, the social worker, and the writer, all or only one of whom might be present at any one meeting. The group met for one hour on Thursday on the ward and for one and one-half hours on Friday in the O.T. shop. The goal of the group was primarily socialization. Coffee was usually available and served by a patient. Several of the patients were quite withdrawn.

11. Canteen (closed ward). Twice a week a group of approximately 40 nonprivileged patients were taken to the recreation building where they bought fountain items and "luxuries" (e.g., candy, cigarettes, and stationery) with hospital-issued "canteen books." They remain in this setting for 30 minutes to one hour, depending on the size of

the group and the speed with which they finish purchasing and eating. The majority of the patients make purchases in the coffee shop, a small number purchase items in the PX, and some make no purchases, but wander through the building. Those who first finish eating wait until the entire group is ready to return to the ward.

12. Ward Conference. Typically this is strictly a staff setting and it is only occasionally that a patient visits it (by invitation only). It meets weekly for one hour, with a maximum of 15 staff members from the ward and other services attending. Primarily, problems of hospital and ward administration are discussed; when patients attend it is for a review of their cases, in much the same way that cases are reviewed by the Disposition Board. In the process of performing its activities, there is usually quite a bit of pure socialization.

E. Illustrative Findings

In the interest of demonstrating how the method works, we shall indicate a few of the conclusions which may be drawn from the data. Because of the incompleteness of the data, the reader is cautioned to regard the conclusions drawn from it as only illustrative of the method. The following discussion will be carried on, however, as if the data presented here were accurate and comprehensive.

There are endless questions which we might ask about the behavior of hospitalized mental patients and the environments in which they willingly or unwillingly find themselves. Without attempting

to determine what might be the most important of these questions, the following will serve to indicate some of the questions which may be adequately answered by use of this method.

1. Occupancy Time (where people spend their time). One very obvious question frequently asked by hospital visitors (but seldom by hospital staff) is "Where do they spend their time?" The immediate answer coming to mind to a staff member may well be, "On the locked ward, they spend all their time right there," and this is indeed almost true. Data concerning occupancy time are presented in Table 1.

Of an aggregate weekly waking time for the 80 East end patients of 8,960 person-hours, an average of 58.01 patients spend 8½ hours a week in the East dayroom for a total of 4,873 person-hours spent in the dayroom. This is the ward's largest setting in terms of occupancy time, staff and patients together spending about 8,000 person-hours there each week. According to Table 1, 1,120 person-hours of the remaining patient waking time is spent in preparing for bed and 560 of it in getting up and dressing. Both settings occur in the dayroom. Thus the patients spend 6,553 person-hours or slightly over 73.1 per cent of their waking time in the dayroom, hall, latrine, and porch of the East end of ward 7. The next largest portion of their time is spent in the dining room which is occupied by East end patients 1,264 person-hours per week.

If importance of behavior settings or environments for the patient group as a whole were to be determined by the amount of time spent in them (which is a way the importance of environments is

TABLE 1
POPULATION, OCCUPANCY TIME, AND PENETRATION
IN SELECTED WARD 7 SETTINGS

Setting Name	Population		Hours Per Week	Patient Occupancy Time	Penetration			
	Staff	Patient			Hi-zone S	M-zone P	Hi-zone S	M-zone P
Dayroom, East (general)	3	58	84	4873	6	4	5	3
Noon medications	2	10	1.75	21	5	3	5	3
Doctor's rounds	4	11	2.5	37	6	3	5	3
Haircuts	3	3	1	3	5	3	5	3
Preparing for bed	2	80	14	1120	5	3	5	3
Gospel singers	9	110	5	55	5	4	4	2
Dressing (a.m.)	4	80	7	560	6	3	5	3
Showers, East End	2	20	5	100	5	4	5	3
Shaving, East End	3	15	3	45	5	4	5	3
Shaving, West End	1	3	14	42	5	3	4	3
Meals, East End only	4	80	15.8	1264	5	4	4	3
Meals, Entire Setting	13	224	15.8	3539	5	4	4	3
Physical Therapy	1	9	9	81	6	3	4	3
Occupational Therapy	3	20	3.75	75	5	4	5	3
Corrective Therapy	2	10	10	100	6	3	6	3
Outside Detail (at cemetery)	2	25	24	600	5	4	5	4
Group Therapy (on ward)	3	10	1	10	6	4	5	3
Canteen (closed ward)	12	40	2	80	6	4	4	3
Ward Conference (staff)	15	5	1	5	6	2	3	-

- Notes: 1. Numbers in body of table refer to estimates and ratings discussed in Chapter I.
2. Patient population based on a total of 80 patients for East end and 60 patients for West end. Aggregate weekly waking time for 80 patients equals 8,960 patient-hours.
3. Aggregate waking time (grand total patient occupancy time) does not include settings whose population overlaps with East Dayroom (general).
4. "Hi-zone" refers to maximum observed penetration; "M-zone" refers to usual penetration.

occasionally determined for a normal, free individual), the order of importance would be (a) "Dayroom," (b) "Dining Room," (c) "Outside Detail," (d) "Showers," (e) "Corrective Therapy," (f) "Physical Therapy," (g) "Canteen," (h) "Occupational Therapy," (i) "Shaving," and finally, (j) "Group Therapy."

By the same criterion, the order of importance of the ten varieties of community settings inhabited most by Midwest citizens is (a) School Classes, (b) Trafficways, (c) Grocery, Locker and Feed Stores, (d) Motor Vehicle Sales and Service Settings, (e) Drug, Variety, and Department Stores, (f) Indoor Entertainments, (g) Restaurants and Taverns, (h) Government and School Offices, (i) Home Appliance, Hardware Implement and Furniture Stores, and (j) Attorneys, Insurance, and Real Estate Offices. A large part of this difference between Midwest and ward 7 lies in the fact that in Midwest, private behavior settings, such as "Home Indoors" were not included in the behavior setting survey. Ward 7, however, is a locked psychiatric ward and, by definition, there are no private behavior settings. Thus in what we have termed, "Dayroom, General Setting," we have invaded the aspects of patients' environments most nearly comparable to "Home Indoors."

We may compare the occupancy times of those settings which are generally considered by staff members as "necessary activities of everyday living," and those settings which are considered to be primarily for "therapeutic" purposes. Doing this we arrive at the following breakdown, in which Dayroom, East, was excluded due to its complex nature.

TABLE 2
OCCUPANCY TIME OF SETTINGS IN PATIENT-HOURS

"Therapeutic" settings	Hours	"Non-Therapeutic" Settings	Hours
Outside Detail	600	Meals	1,264
Corrective Therapy	100	Preparing for Bed	1,120
Physical Therapy	81	Dressing	560
Canteen	80	Showers	100
Occupational Therapy	75	Shaving	45
Doctor's Rounds	37	Haircuts	<u>3</u>
Medications	21		
Group Therapy	<u>10</u>		
Total	1,004	Total	3,092

The ratio of "therapeutic" to "non-therapeutic" settings in terms of patient hours is 1:3. With a more rigorous definition of "therapeutic," it may be found that some particular ratio is particularly frequent in chronic wards while the ratio for active treatment wards might be higher, and that of a "therapeutic community," highest of all. Certainly this would be a common expectation, at least crudely testable by use of such a survey.

By turning to the numbers of population sub-groups found in the setting (only the major classification of staff versus patient has been presented in Table 1), we may compare the occupancy times of different population subgroups, finding for instance that in general privileged patients spend large shares of their time in quite different settings than do nonprivileged patients.

In Table 1 we may at first be a little surprised to learn that, while the staff spends much less total occupancy time in the weekly subsetting "Gospel Singers" than in the daily setting "Doctor's Rounds," patients spend an aggregate of more time in the setting "Gospel Singers" than in the more frequent "Doctor's Rounds." Barker and Wright have developed a convenient technique for studying this sort of phenomenon, which they call the Occupancy Index, defined as ". . . the percent of the total occupancy times . . . which the subgroup spent in the setting or group of settings." (p. 99)

2. Penetration Zones. (the involvement of persons in settings).

Data pertaining to penetration of settings by staff members and patients are presented in Table.1. We find without much surprise that patients and staff become involved in almost all hospital settings in rather stereotyped ways. Staff members always carry authority positions, while patients rarely reach even the status of active functionaries, i.e., people who have responsibility for the carrying out of some function. Patients on the East end of ward 7 are depended upon very little. Speculating upon the independently observed therapeutic value of the "Outside Detail," one might be inclined to feel that the daily entrance of almost all of these patients into Penetration Zone 4 is a contributing factor to the therapeutic effect of this detail. Indeed, this is simply a re-phrasing of part of the rationale for industrial therapy.

It is interesting to note that although staff members in "Shaving, West," "Meals," and "Physical Therapy" officially have the authority

of shared leadership, which is universally recognized, in terms of their usual behavior, they perform more as active functionaries than as leaders (column labeled M-zone). By this we simply intend to point out that the patients en masse do not frequently encounter authorities acting in an authoritative way in these settings.

By attending to further subdivisions of the major population categories, one could find, for example, which patient categories reach the level of active functionaries. On ward 7 at the time of this survey, it was mostly privileged patients who were in a functional capacity (supporting data is not included in the tables). This was due to an informal policy of issuing privileges partly on the basis of whether the patient was working or not, using the privilege card as an unofficial reward for the satisfactory performance of regular work assignments. That this is an informal tendency and not a hard and fast rule is indicated by the fact that there are some non-working patients who hold privilege cards and several working patients who do not hold privilege cards; however, this fact is not revealed by the present study.

3. Action Patterns (what is done in the settings). Data pertinent to action pattern ratings are presented in Table 3. If we turn to the most gross analysis, that of grand total action pattern ratings for each setting, which as we suggested in Chapter I might be taken as a vague indication of "importance" or "total meaning," of the setting rated, we find "Doctor's Rounds" to have the highest grand

TABLE 3
TOTAL ACTION PATTERN RATINGS FOR SELECTED
WARD 7 SETTINGS

Setting name	Action Patterns (Rating Totals)														Total
	A	B	EL	Ed	G	N	O	PA	PI	PH	Rc	RI	SC	W	
Dayroom, East (general)	1	-	1	-	1	-	1	2	1	1	2	-	2	2	12
Noon medications			2	2			1	2		3			5	1	15
Doctor's rounds	1		2	5			1	3		4	2		6	2	24
Haircuts			3	1				5					3	3	12
Preparing for bed	1		1	1			1						1		5
Gospel singers	2		1	1			1		3		2	3	2	3	15
Dressing (a.m.)			1	1	2	4	6			2	1		1	2	18
Showers, East End			1	1			2			5			2	2	11
Shaving, East End			1	1			1	7					3	3	13
Shaving, West End			1	1				5					1		8
Meals, East End Only			1	1	5	1		1			1		2	3	12
Meals, Entire Setting			1	1	5	1		1			1		2	3	12
Physical Therapy			1	1			1	1		4	1		2	2	11
Occupational Therapy	6		1	3	1	1	1		3		4		2		22
Corrective Therapy			1	1						5	3		4		14
Outside Detail (at cemetery)	5		6	1		1					2		3	1	18
Group Therapy (on ward)			1	1	1	1							5		9
Canteen (closed ward)	1	2	1	1	4	1					4		1	2	15
Ward Conference (staff)			7	6		4	1		1				3		22

Notes: 1. Numbers in body of table refer to ratings discussed in Chapter I.

2. Action Pattern abbreviations:

A - Aesthetic	PI - Philanthropy
B - Business	PH - Physical Health
EL - Earning a Living	Rc - Recreation
Ed - Education	RI - Religion
G - Government	SC - Social Contact
N - Nutrition	W - Waiting (not included in total)
O - Orientation	
PA - Personal Appearance	

total action pattern rating of all the settings rated—a rating of 24. Next we find "Ward Conference" and "Occupational Therapy," each having a grand total of 22. Following these are "Outside Detail" and "Dressing," and third from the lowest of the grand total action pattern ratings, we find "Group Therapy," with a grand total rating of 9.

Certainly this distribution gives us cause to wonder about the extent that the grand total action pattern ratings may be taken to indicate "importance," "total meaning," or "significance" of a setting. It is in accordance with this interpretation that "Doctor's Rounds" is high on the list; however, the occurrence of "Dressing" on the high end of the list and "Group Therapy" on the low end of the list does not agree with the ultimate criterion of common social evaluation. In interpreting the grand total action pattern ratings, it must be kept in mind: (a) that more truly than "importance" or "meaning," these totals indicate only the extent to which a variety of activities having different purposes are taking place in a setting, and (b) that action pattern ratings, being classifications of percentage ranges, may be influenced by the number and varieties of persons passing through a setting. Thus we find a wider diversification of activities in "Occupational Therapy" and in "Dressing" than in "Group Therapy," partly because of the numbers of people who use the setting. It is only in this sense that the grand total action pattern ratings may be taken to indicate "importance" or "total meaning." They do not necessarily reflect importance to the individuals involved.

One may well ask what action patterns, or more loosely, what "goals" are maximized by the ward structure and by particular settings. Toward this goal, Barker and Wright developed the "prominence index," (p. 127) which is computed by the following formula:

$$\text{times } \frac{100 (\text{number of settings rated 6 or more on action pattern X})}{\text{total number of settings}} \times \frac{100 (\text{person-hours spent in settings rated 6 or more on X})}{\text{Grand total occupancy time for all settings.}}$$

The two major parts of the formula are the "territorial index" and the "occupancy index" respectively. This formula provides an index of the extent to which the population engages in the action patterns for which the formula is computed.

Although Barker and Wright used an action pattern rating of 6 as the cutting point for inclusion in the "prominence index," we find only five patient-populated settings in which there is a rating of 6 or more on any action pattern. In other words, we found 12 of our 17 settings and subsettings (about 70 per cent) with no action patterns rated 6 or over, whereas in Midwest, only 107 of their 585 rated settings (about 18 per cent) had no action patterns rated 6 or over. This appears to be numerical support for the complaint of "in contact" patients and the immediate impressions of visitors that "there is nothing going on here." In order that our crude index of maximization of action patterns may cover a larger number of settings, we are forced to lower the cutting score from 6 to 4.

Because of the limitations of our data, we feel justified in using a simpler and cruder "maximization index" for illustrative purposes.

To arrive at the maximization index, we simply summated the occupancy times for all settings with a rating of 4 or over on the particular action pattern, arriving at an ordinal indication of the maximization of the action pattern.

TABLE 4
MAXIMIZATION OF ACTION PATTERNS--WARD 7

Action Pattern Rated 4 and Above	Gross Occupancy Time (Patient Hours)
1. Nutrition	1344
2. Aesthetic	675 (includes Outside Detail)
3. Personal Appearance	663
4. Earning a Living	600 (Outside Detail only)
5. Orientation	560 (Dressing only)
6. Physical Health	263
7. Social Contact	168
8. Recreation	155
9. Government	37 (Doctor's Rounds only)

According to the data in Table 3, as summarized by this index, this is the hierarchy of action patterns maximized in the patients' environments on the chronic ward. In no patient-populated setting rated did the action patterns Business, Education, Philanthropy, or Religion receive a rating of 4 or more. According to Barker and Wright's "Prominence Index," the hierarchies of action pattern maximization in the town of Midwest and in the Lawton School (a private school for crippled children) were as follows: (p. 127)

TABLE 5

PROMINENCE OF ACTION PATTERNS IN MIDWEST AND LAWTON

Midwest	Lawton
Social Contact	Recreation
Recreation	Social Contact
Business	Nutrition
Earning a Living	Education
Education	Physical Health
Government	Personal Appearance
Religion	Aesthetics
Aesthetics	Religion
Nutrition	
Physical Health	
Orientation	
Personal Appearance	
Philanthropy	

We have presented these ordinal arrangements primarily to illustrate the fact that this form of data readily lends itself to comparisons of potential importance. The reader is cautioned against too quickly speculating on the differences between a small town, a crippled children's school, and a custodial locked ward of a mental hospital on the basis of these data.

Finally, one may be primarily interested in which settings maximize which action patterns. As expected, certain settings tend to specifically maximize certain action patterns. A common way of voicing this expectation is to say, "The club meets for social purposes;" "We eat at the dining room;" or "We make things in O.T." The following is a list of action patterns together with the settings in which they received highest ratings, and the ratings the particular action patterns received in those settings.

TABLE 6

SETTINGS MAXIMIZING PARTICULAR ACTION PATTERNS

Action Pattern, Setting	Rating
1. Nutrition	
Meals	5
Canteen	4
2. Personal Appearance	
Shaving, East	7
Dressing	6
Shaving, West	5
Haircuts	5
3. Aesthetic	
Occupational Therapy	6
Outside Detail	5
4. Earning a Living	
Outside Detail	5
Ward Conference	7 (Staff only)
5. Physical Health	
Corrective Therapy	5
Showers, East	5
Doctor's Rounds	4
Noon Medications	3
6. Orientation	
Dressing	4
Ward Conference	4 (Staff only)
7. Social Contact	
Doctor's Rounds	6
Group Therapy	5
Noon Medications	5
Corrective Therapy	4
Outside Detail	3
8. Recreation	
Occupational Therapy	4
Canteen	4
Corrective Therapy	4
9. Business	
Canteen	2
10. Education	
Occupational Therapy	3
11. Government	
Doctor's Rounds	5
Ward Conference	6 (Staff only)
12. Religion	
Gospel Singers	2

This listing brings us to the findings that most settings accomplish the purpose for which they were originally constructed. A few possible differences may be found under Aesthetic (in "Outside Detail"), Orientation (in "Dressing"), and Social Contact (in "Corrective Therapy").

Further uses of the action pattern ratings are described in detail by Barker and Wright, (pp. 122-140) including the selection of action patterns by population subgroups. A similar analysis of ward 7 would probably indicate the wide differences in what staff members do and what patients do, as well as the differential selection of action patterns by privileged versus non-privileged patients.

4. Behavior Mechanisms (How the activities of settings are accomplished). Behavior Mechanism ratings may be dealt with in much the same way as the Action Pattern ratings. Data pertaining to Behavior Mechanism ratings are presented in Table 7. Applying the same crude index of summation of occupancy times of all settings in which behavior mechanisms were rated 4 or higher, we find the following hierarchy of behavior mechanisms maximized.

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TABLE 7

TOTAL BEHAVIOR MECHANISM RATINGS FOR
SELECTED WARD 7 SETTINGS

Setting Name	Behavior Mechanism Ratings							Grand Total
	GMA	Ta	Ma	Th	AB	Lo	Li	
Dayroom, East (general)	2	3	1	1		1	1	9
Noon medications	1	3	4			1		9
Doctor's rounds	2	3	1	7		1	1	15
Haircuts		3	5			2	1	11
Preparing for bed	3		3			1	1	8
Gospel singers	1	4	4	1		1	2	13
Dressing (a.m.)	4	3	5	1		1	1	15
Showers, East End	6	3	3			1	1	14
Shaving, East End	3	3	4			1		11
Shaving, West End		3	3			6		12
Meals, East End only	1	3	5			3		12
Meals, Entire Setting	1	3	5			3		12
Physical Therapy	1	2						3
Occupational Therapy	6	3	6	3		3	1	22
Corrective Therapy	6	2	7			1	1	17
Outside Detail (cemetery)	7	3	4			3	1	18
Group Therapy (on ward)		3	1	2			2	8
Canteen (closed ward)	1	3	3			2	1	10
Ward Conference (staff)		5	1	5			2	13

Notes: 1. Numbers in body of table refer to ratings discussed in Chapter I.

2. Behavior Mechanism abbreviations.

GMA - Gross Motor Activity

Ta - Talking

Ma - Manipulation

Th - Thinking

AB - Affective Behavior

(ratings omitted due to gross inaccuracy)

Lo - Looking

Li - Listening

TABLE 8
MAXIMIZATION OF BEHAVIOR MECHANISMS

Mechanism	Gross Occupancy Time (Patient Hours)
Manipulation	3943
Gross Motor Activity	1435
Talking	55
Looking	42
Thinking	37
Listening	(None rated 4 or more)
Affective Behavior	(Ratings omitted)

The hierarchy of behavior mechanisms as indicated by Barker and Wright's prominence index is as follows. (p. 142)

TABLE 9
PROMINENCE INDEX OF MIDWEST BEHAVIOR MECHANISMS

Mechanism	Prominence Index
1. Thinking	2254
2. Gross Motor Activity	1172
3. Manipulation	1066
4. Listening	800
5. Talking	595
6. Looking	500
7. Affective Behavior	420

These data suggest a picture of ward 7 as a place where one finds mostly small-muscle and hand movements such as those involved in eating, smoking, thumbing through a book, and writing. Second to

this, we find Gross Motor Activity, such as walking, pushing lawnmowers, and exercising in "Corrective Therapy." Both of these mechanisms are found much more frequently than Talking, Looking, Thinking, and Listening. This suggests a rather active group of settings, which are nevertheless marked by a lack of communication and obvious problem solving. The standing behavior patterns of ward 7 seem to demand "use of muscles, but not of the brain." In contrast, Midwest settings were characterized by Barker and Wright as environments in which ". . . the most common standing behavior patterns required both brains and muscle." (p. 143) As with action patterns, Barker and Wright present several more uses of the behavior mechanism ratings, including the "selection" of behavior mechanisms by population subgroups. (pp. 143-148)

F. Evaluation of the Illustrative Survey

We are interested primarily in how well this form of data meets the criteria developed during the study, and described early in Chapter III.

1. Economy. This survey was set down on paper in a few hours' time on the basis of about five months of first-hand acquaintance with most of the settings of ward 7, the observer spending two days each week in the hospital. To obtain comprehensive data, it is felt that considerably more time and effort would have to be expended in (a) familiarization with the ward, (b) verification of estimates and ratings, and (c) actually making the ratings. Workers on previous

behavior setting surveys have reported spending ". . . hours, just to decide on a single action pattern rating." (20) This reflects the difficulty experienced by an observer in recalling his experiences in and observations of each setting, trying to summarize them in one overall rating. One experienced worker found 64 days were required to complete the ratings of the 281 public settings and 11 private settings in a boys' camp. (20) It is felt by the writer that with more thorough familiarization with the method and its requirements a comprehensive and reasonably accurate survey of the ward 7 behavior settings could be accomplished by one person in at least three months of full-time work in a service capacity. Whether this is too extravagant a price for the information gained, the writer is not in a position to judge. In spite of possible inaccuracies, one economy is to be found in the use of the complex capacities of the human observer in combining observations into global judgments and ratings of settings.

All of the findings of this survey could have been discovered by use of a variety of other methods--if this were not so, we should be less apt to stress the verifiability of results; however, this combination of a variety of data descriptive of behavior settings seems to represent a substantial economy over the use of widely scattered, isolated techniques. The fact that Barker and Wright have developed a systematic framework for data collection is one of its strongest economic values, a value which is complemented by the relative ease

with which the data may be manipulated, analyzed, and compared, through the use of punched data cards and computers.

2. Pertinence of Findings. It is unfortunate that the writer is not familiar enough with problems of hospital management, mental illness, and therapy to pass authoritative judgments on the extent to which this form of data meets the "pertinence" criterion. We know of no commonly accepted framework concerning what information is most pertinent; however, some common, isolated judgments may be used as guides.

It is hoped that the illustrative findings presented earlier in this section will speak for themselves concerning pertinence. We feel that the use of this method can uncover important facts about the environments of mental patients in very much the same way that the U. S. Bureau of the Census uncovers very important facts about the overall population of the United States. Such things as occupancy times and intensity of behavior mechanisms are in themselves not always considered crucial to psychological, administrative, or therapeutic problems. However, they are obvious aspects of any behavior setting which may be reliably rated and objectively verified. Furthermore, it is believed by many that they have a high probability of being of psychological importance to individuals entering the settings.

At the time of the survey we were more immediately concerned with the deficiencies of the method than with its accepted values. The first of these is that there is no provision in the method for determining the variability of settings. Settings rarely are exactly the

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same from day to day, even if we ignore the behavior which is attributable to individual characteristics. Most obviously, the exact times of operation of the settings and the populations of them may vary greatly. Usually, more subtle are the variations in the number and penetration zones of various "power figures," and the changes from time to time of the action patterns engaged in as well as the behavior mechanisms used in the standing behavior patterns. These variations were some of the facts about ward 7 behavior settings which increased the difficulty of accurately completing the ratings in the present survey.

Although the population categories used here were especially constructed for use on this ward, we now feel that other patient categories grouped according to the wards on which the patients reside would be more appropriate in this hospital. They roughly parallel the patients' level of organization, age, and prognosis, yet are readily ascertained. Use of this basis for categorization can tell us, for example, the extent to which patients from different wards have an opportunity to mix.

The penetration zones, although valuable in a gross, large-scale analysis, leave one with a rather empty feeling when viewing the data on as small a scale as one ward. Here, one wishes to know not only what penetration zones are occupied, but the manner in which they are occupied as well. The inclusion of "M-zone" to indicate usual overt behavior by staff members only represents a partial answer to this question.

As with the penetration zones, the 13 action patterns designed to include a great many standing behavior patterns are by virtue of that intention abstract. While these abstract action patterns adequately met the needs of the Midwest field study, it is felt by the writer that they are, by virtue of their abstract nature, insufficient for a detailed small-scale study, and to some extent inappropriate to the study of hospital settings if used for the purpose of understanding and maximizing some of the "therapeutic values" of those settings. The action pattern ratings have no illuminating body, and for the standing behavior patterns to be understood, require some sort of supplementary text to indicate the specific actions which comprise the action patterns.

There are two types of activities which occur regularly in ward 7 settings, and which are not adequately represented by any of the action patterns which we have used in this illustrative survey. One of these is a characteristic activity, which rather than being identifiable by its goal or purpose, is identified by its lack of recognizable purpose. This we might call "Idle or Aimless" activity. One example of this would be the sitting and pacing of the men in the east dayroom. As previously noted, we cannot call this activity Recreation with a clear conscience. Neither is it "Waiting" in the sense of waiting for some rather clearly defined goal; it is simply aimless behavior as far as any outside observer can determine and usually as far as the patients' subjective reports reveal.

A second action pattern which might be appropriate in mental hospital settings would be one which might be called "Mental Health" or "Intended Therapy." This would refer to activity which has as its primary goal the betterment of the psychiatric status of patients. At present, however, we are unable to devise a definition of this term which would satisfactorily distinguish it from other action patterns, and which would allow us to reliably rate such an action pattern.

Although some workers see behavior mechanisms as quite valuable, these ratings have haunted us with a feeling that they are not of sufficient inherent meaningfulness to be very useful in a mental hospital survey. After rating them for different settings we find it very difficult to see much importance in them; we are unable to base meaningful conclusions on them to the same extent as with action patterns. This is perhaps due to the fact that they are molecular aspects of behavior and therefore lacking in intrinsic meaningfulness.

It seems possible that redefinition of the behavior mechanisms, or possibly the development of new mechanism terms, perhaps on a more molar level, such as Social Interaction (as a mechanism for accomplishing action patterns), Visual-Motor Coordination and Routine Repetition, may lead to more meaningful interpretation of the ways in which standing behavior patterns accomplish the purposes implied by the action patterns.

Because we did not use the "Social Weather Scales" developed by Simpson, (22) we have too little which tells us about the social features of the behavior settings, social atmosphere, social structure, and

organizational processes; if they are to be gotten from this survey, they must be unsatisfactorily inferred from the penetration zones, population categories, and action patterns. Thus, unless we use the time-consuming "Social Weather Scales" or a substitute for them, this method will largely neglect what many people would consider the most important aspects of mental hospital settings.

Insofar as the physical milieu of a setting influences the standing behavior patterns, through its physiognomic impressions as well as through concrete physical restriction of behavior, we feel that this survey tells us too little about the physical milieu. Certainly a full description of the physical aspects of settings in such a survey would be too laborious considering the significance of the information resulting from it. Nevertheless, we do feel that perhaps some attention paid to at least the interaction of behavior and the physical surroundings (i.e., the physical aspects of the setting which seem to the observer to be of importance for the standing patterns of behavior occurring in the setting) would be of value to any comprehensive analysis of patients' environments.

3. Comparability of Findings. We assume that the foregoing illustrations are adequate demonstration that findings from this sort of survey are comparable with findings from similar surveys. Where the differences in techniques of data collection and statistics used make direct numerical comparisons inappropriate, as with the "maximization of action patterns," rank order comparisons appear to be illuminating.

We feel that the primary stumbling block to achieving comparability would be unrecognized adoption of different frames of reference by different observers. Barker and Wright have not found this to be a problem; however, as we understand it, all of their workers have had a common orientation to the method--a much richer orientation than can be given in writing. It seems possible that this method, when tried by different observers having a different orientation to it, will result in unintentionally producing data which is not comparable to data produced by other workers in different locations. This problem might become particularly important as modifications of the method are made to suit the needs of particular areas of research.

4. Theoretical Orientation. Although the basic conceptions of behavior settings and the development of this method are an outgrowth of Lewin's theoretical orientation and teachings, and there is the underlying assumption that behavior settings influence behavior, (p. 53) we feel that this outgrowth is remarkably theory-free. We are in agreement with Barker and Wright when they classify behavior settings as "empirical fact," and consider that they have "discovered" behavior settings rather than having "invented" them. The estimates and ratings derive their validity and usefulness in no small way from their concrete roots. They may be verified directly by the very concrete process of counting up person-hours, and indirectly by the use of reliability studies on the ratings. Further, the findings may often be conceptually verified by referring to common social knowledge as Barker and Wright have frequently done throughout their book.

It is conceivable that investigators with widely differing theoretical points of view may find this data useful to their particular problems. A learning theorist might find interesting comparisons of improvement measures for patients with high occupancy times in settings high in Social Contact as opposed to those in settings rated low in Social Contact. An analytically oriented researcher might find interesting the population of "nutritional" settings by patients in different diagnostic categories, and it is conceivable that an Adlerian student may find usefulness in the therapeutic effectiveness of settings differing in the penetration zones which they offer to patients.

It should be noted that this method is not limited to the use of only the variables used by Barker and Wright or those proposed in this paper. As a multiple rating system, we see no reason why variables may not be added, omitted, or modified to suit the researcher's needs. For instance, one could conceivably rate settings in terms of "Ego-supportiveness" or in terms of "positive and negative reinforcement of archaic impulses."

5. Nondisruption of Therapeutic Processes. As the methods of the present survey require only that the observer live in the setting long enough to make sure of his ratings, it permits the use of any form of participant observation. We are sure that all settings can be rated without the taking of notes in the setting, and if deemed necessary due to defensiveness on the part of patients or staff, it could be accomplished by an observer operating in a disguised role.

It is the writer's opinion that, if anything, the fact that he was known to be studying ward 7 behavior settings may have generally enhanced the therapeutic effectiveness of the ward by focusing attention on those activities.

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V. SOME POTENTIAL MODIFICATIONS OF THE MIDWEST TECHNIQUE FOR USE IN HOSPITAL ANALYSIS

In developing the behavior setting survey, Barker and Wright purposely moved slowly, choosing to neglect many of the areas we have mentioned under "pertinence of findings" in favor of orderly procession toward a method which would summarize the most obvious aspects of behavior settings in a systematic and economical, yet verifiable, way. But we have been impatient. We hoped to accomplish a practical objective of finding some relatively simple and systematic way of describing settings which, through having a greater richness of detail, would be of immediate practical value to the administrators concerned with the settings, and which would at the same time have a framework flexible enough to provide for further developments of the method.

In making the following modifications, our attitude has been exploratory, looking more toward what pertinent data might be gathered concerning settings than looking toward problems of reliability of ratings, careful use of statistics, and validating our assumptions about the meaning of data. Thus, outside of some informal comparisons among hastily oriented observers and a few informal discussions, nothing along this latter line has been done to support the techniques suggested, and our evaluative statements are based on speculation and meager experience. Without fully realizing it, we have strayed somewhat from our criterion of avoiding theoretical entanglements,

insofar as some implicit theorizing has entered into several of the concepts developed here. Insofar as we recognize this, we shall warn the reader of it.

This chapter is organized according to the following plan:

Sections A and B - General Techniques for Maximizing Detail
Sections C through F - Quantitative Descriptions
Sections G through L - Qualitative Descriptions

A. Direct Observation and Time Sampling

As mentioned in Chapter IV, we were made very uneasy by the known variability of the settings--by both the variations in population characteristics, and to a lesser extent, by variations in the standing behavior patterns. The first suggestion toward eliminating this difficulty in the absence of naturally occurring records clarifying those aspects of the settings about which we were uncertain, was to return to the settings with checklists specifically for those aspects.

From this point it was a very short step further to apply the same worksheet to settings for just those times during which the settings were observed. By doing this, the data of a behavior setting survey becomes the product of direct observation, and the problem of variability becomes more clearly one of time sampling, which may be attacked by more clearly understood principles of sampling. This technique might remove some of the uncertainty of the method and reduce the complexity of raters' judgments. By using this method of direct observation and reducing the length of time used as a basis

for ratings, there seems less potential danger of particularly striking (to the observer) events receiving spuriously high emphasis in ratings.

For settings which occur repeatedly for relatively short time periods, such as "Medications," "Shaving," and "Meals," it seems best to sample each occurrence of the setting as a unit rather than attempting to follow a rigid time sampling schedule and examining unnatural temporal segments of the settings. With continued settings which occur more or less throughout the day with few or no natural and obvious breaks, such as "Dayroom, General," "Front Lawn," and "Canteen," it seems more appropriate and economical to follow a pre-arranged time sampling schedule, flexible enough that allowance might be made for separate rating of major subsettings which appear to alter the general setting (as "Gospel Singers" alters the setting "Dayroom, General" sufficiently that a time sample at that time of "Dayroom, General" would not be representative). So far we have been using ten to twenty minute samples for these settings.

We feel that this procedure of using direct observation as the basis for ratings has an advantage in reducing variability problems to a great extent, such that with samples of sufficient number, fairly accurate measures of variability as well as central tendency might be made. In addition, because a shorter time span is used as the basis for ratings, and the complexity of the rater's task is thereby reduced, the data may be said to be "closer" to the observed facts, and greater objectivity might be claimed for this technique. This, of course,

would suggest more reliable ratings for the direct observation technique; however, informal comparisons by raters observing the same samples of the same settings suggest no more striking agreement than obtained by Barker and Wright. For us at this early date, the main advantage seems to be one of greater comfort and certainty in making the ratings.

A potential disadvantage to this system is that variability of ratings may be spuriously dampened due to the rater's carry-over from previous samples of the same setting. This has appeared to be more of a problem with some of the newer data developed than with the data required by the Midwest technique. Insofar as the direct observation techniques give some indication of variability where none existed before, this possibility of "flattened variability" may be considered a disadvantage only insofar as the researcher might be misguided in thinking that he has accurate measures.

B. Reduction of Settings into Component Subsettings

In taking the more detailed view by use of direct observation, it seemed desirable to reduce some large and complicated settings, such as "Meals," and "Occupational Therapy" into more readily observable segments. While there are many ways this might be done, it appears that one logical way is to break up these settings into subsettings. These subsettings may be determined by use of the statistic, "K," and may be rated independently, the ratings of action patterns

and behavior mechanisms being combined by an averaging process based on occupancy time. It is important to recognize, however, that this averaging procedure may only be used where all the subsettings within a setting are taken into account.

The relative value of these techniques of direct observation, time sampling, and reduction of settings into subsettings is analogous to that of a microscope. On the one hand these procedures permit a more detailed group of ratings, but they may restrict the "field of view" on the other. There seems some danger that the more microscopic view of subsettings in isolation may encourage a failure to observe the inter-relationships among the subsettings with a resultant inaccuracy both in ratings and in understanding of the overall organization of the setting.

From the point of view of economy, these techniques for maximizing detail may prove to be distinctly uneconomical for large-scale studies. The extent to which these modifications are used will have to be dictated by consideration of the goals of the study and the time and manpower available.

From a theoretical point of view, we are somewhat concerned about the interpretation of results if, upon further research, it is found that data resulting from use of these techniques of direct observation, time sampling, and reduction of settings into subsettings for rating purposes turns out to be widely variant from data produced by techniques used at Midwest. At first glance we should be inclined to

pronounce the more detailed or microscopic data as the more accurate and valid; however, it may well be that the difference lies in the nature of the phenomenal appearance of settings and standing behavior patterns. The behavior setting survey is sometimes considered to be a detailed and systematized representation of the way settings appear to their inhabitants, more than a coldly objective view of what actually exists in the setting. If we have more objectively accurate data, through use of the suggested techniques, it may not in fact be an accurate representation of the appearance of the setting to the inhabitants. An illustration may clarify this point.

We have noted that the Physical Therapist in the setting "Physical Therapy," although actually a single leader in that setting, usually behaves as an active functionary, giving no orders but simply informing the patients as to what is to be done and operating the controls on the equipment. In taking a detailed view of the setting, there is a tendency to list the Physical Therapist in Penetration Zone 4 each time it is observed, ignoring the universally recognized fact that he is a single leader and can give direct orders to both patients and aides within that setting. It is because of this universal recognition that it is possible for this man to work in the way he chooses, as an active functionary. Thus, in spite of the fact that he behaves as an active functionary, he is generally seen as a leader. The question arises, which is the more "accurate" penetration rating?

This was perhaps less of a problem in Midwest, as the observation technique used there did not tend to maximize the difference we have

noted. We have had insufficient experience with both techniques to offer an answer, but the researcher choosing a technique should be aware of the possibility of this sort of difference occurring and make a decision as to whether he wishes to maximize the concrete roots and verifiability of the ratings or the accuracy of representation of the phenomenal appearance of the setting--the latter perhaps being the more difficult task.

The writer feels that the above techniques for maximizing detail in ratings, i.e., direct observation, time sampling, and rating of subsettings, are potentially the most important modifications offered. Their importance is that they radically change the nature of the observer's task, his basis for rating, and the nature of resultant data. The precise nature and extent of these changes is still unclear, but they may make possible many new sorts of behavior setting description.

The following modifications were developed simultaneously with the foregoing modifications. Some resulted from the writer's constant change of focus from setting to worksheet and his discovery of new ways in which settings might be described. Others developed more out of discussions of setting description with others.

C. Population Turnover

In taking a more detailed view of settings by use of direct observation, it becomes obvious that within one occurrence of a setting the population may change markedly. In some settings, such as "Medications" and "Showers," there is a regular turnover of patients

who move through the setting at a rather regular rate of speed, and in the case of "Medications," there is little change in the total population of the setting. In other settings, such as "East Dayroom" and "Occupational Therapy," there is irregular turnover, consisting primarily of privileged patients, which results in irregular population changes. In the case of the "East Dayroom of Ward 6," it was found that in addition to the irregular patient turnover, there was repeated turnover by one aide who entered the Dayroom on various errands several times during one time sample.

So far, these three types of turnover, regular, irregular, and repeated, have proven to be readily distinguishable. We have found it convenient to indicate these three types of turnover, the population categories responsible for the turnover, and the net change in population. It is possible, but not convenient except in the case of regular turnover, to estimate some temporal aspects of the turnover such as the average time spent in the setting by members of each population category and the numbers in each population category passing through the setting during each unit of time.

Turnover data appears important through its relevance to overall occupancy time estimates. In the case of settings with regular turnover, including the mobile setting "Doctor's Rounds," the occupancy time seems best estimated on the basis of turnover data--in this case, the number of people entering and leaving the setting per unit time. In addition, turnover data may give some hints as to some of the

qualitative features of the settings. Settings having regular turnover seem to have quite a different character from settings having irregular turnover or very limited turnover. Although we have no supporting data, it seems to the writer that most of the settings having regular turnover of patients are more businesslike, formal, and in general, tend to be more impersonal and less relaxed. Further, in these settings, patients seem to have a clear idea of what is expected of them. These are judgments which should be made independently of a behavior setting survey.

D. Space Ratio

By "space ratio" we refer to the amount of available floor space in the setting which is actually being used. The space ratio was developed in hopes of indicating the extent to which forces exist in a setting tending to draw people together more closely than forced by the physical limitations of the setting. It was noticed, for instance, that in the setting "East Dayroom," patients tended to be spread out, using all of the available space. However, in the setting "Closed Ward at Grove," the same group of patients did not use all of the available space, but tended to congregate for the most part in one section of the space devoted to picnic tables. The space ratio was developed as a means of recording this sort of observation.

Space ratio may be computed by dividing the "milieu area" (total available floor space) into what we have called the "group area," which is roughly defined as "the area enclosed by a perimeter

enclosing all inhabitants of the setting." Such computation results in a crude measure which may vary from an infinitely small fraction to a maximum of 1.00. Although this definition sounds readily verifiable by objective measurement, we have considerable ambiguity in the phrase, "area enclosed by a perimeter surrounding all the inhabitants." In settings where the population is distributed among several small, but widely separated groups, or in which one or two people are widely separated from a relatively compact group, it is not at all clear how such a perimeter should be drawn. Because of this difficulty, and in reference to the supposed meaning of this aspect of settings, it appears both more convenient and more appropriate to make a purely intuitive rating of the space ratio than to attempt to measure it in a physical way.

E. Population Density--Modal Interpersonal Distance

This is seen as closely related to the space ratio. Especially when the space ratio is less than one, it is possible that the closeness of people to each other may be of psychological importance, although this importance will probably need to be determined independently for each setting observed. At first, we intended to divide the group area used for the space ratio by the number of people in the setting, thus achieving a measure of population density. Due to the ambiguity of the concept "group area," however, the estimate of "modal interpersonal distance" was substituted. We have defined modal interpersonal distance as "The mode of the distances between each occupant

of the setting and his nearest neighbor." This newer concept seems somewhat less ambiguous, and seems to offer less difficulty in estimation, although reliability has not been determined.

F. Coercion Scales

In producing the illustrative survey in Chapter IV, we noted that some settings, aside from their daily variability, were strikingly harder to rate than others. In some settings, such as "Corrective Therapy," the standing behavior patterns seemed to stand out clearly. In others, such as "East Dayroom" and "Canteen," the standing behavior patterns seem less well defined. Similarly the settings that were difficult to rate tended to be more complex than those which were easier to rate, having more activities in progress at once. It was suggested by P. H. Scoggen, Ph.D., that this was very much like Barker and Wright's concept of "coercion" of the setting upon standing behavior patterns. (p. 9, 53-57)

Noting that standing behavior patterns do exist and that they differ from one setting to another, and noting that the individual's behavior varies from one setting to another, leads to the inference that there are aspects of the settings which "coerce" behavior. It is assumed that settings in which very few types of activities occur are generally the more coercive--streets are generally said to be coercive in that it is rare that one finds behavior other than locomotion on them.

"Morning Medications" is an obviously coercive setting and is designed to be that way. Tables are arranged in a restricting part of the ward (the entrance way of the central hall), and usually one or two aides are busy directing traffic through the setting, sending patients to their dayrooms as soon as they have taken their medications. An aide stands at the entrance door restricting entry into the setting sometimes by using his arm as a gate. Because of the crowding in the stairway outside, little behavior is possible other than simply standing and waiting. As a result, the standing behavior patterns in "Morning Medications" are very clearly defined and easy for the non-participating observer to grasp. The "East Dayroom," however, though restricted by locked doors, has fewer coercive features. Within the physical space available, there is more freedom of movement. A greater number of potential behavior objects are available, and a comparatively wide range of behavior is permitted by the aides and ignored by the patients. Finally, the "East Dayroom" does not have such clearly prescribed behavior patterns in the sense of aides telling patients specifically what they are to do in the setting throughout the day. For these reasons we feel that behavior patterns in "East Dayroom" are more complex and less clearly defined. To the outside observer it is much less obvious just what is going on much of the time.

We have formulated three "scales" which we consider to be indicative of the coerciveness of settings. To date we have gathered too little data to suggest their usefulness; however, they represent a step toward analyzing and recording this presumably important aspect of settings. It is felt that there may well be other, more appropriate

ways of achieving this goal. In a strict, statistical sense, we are euphemistic in the use of the term "scales," for use of that term implies unidimensionality and the possibility of transitive judgments along the dimension dealt with by the scale. We have not yet undertaken to support either of these assumptions and, in using them, we are assuming without evidence that they are in fact scales.

The Coercion scales refer specifically to aspects of the standing behavior patterns observed. The first scale refers to the phenomenal vagueness or clarity which the observer finds in the standing behavior pattern. Here the observer is asked to indicate whether he immediately has a feeling of certainty about what the standing behavior patterns are, or whether he feels that behavior in the setting is somehow vague and unclear.

The second coercion scale refers to the complexity of the standing behavior patterns. By complexity we refer to the extent to which there are a number of separate activities occurring at the same time or overlapping temporarily in the way one generally thinks of a "three-ring circus," or, on the other hand, whether there are only a few activities in which all the inhabitants of the setting are engaged.

The third coercion scale refers to the extent to which the behavior appears to be spontaneous or prescribed. This is the most inferential of the scales, as the spontaneity or prescription of behavior is usually not directly observable, particularly if observations are made on the basis of rather brief time samples. Any variability found in rating of this variable might well be attributable

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to the observer's growing acquaintance with the setting rather than to variation in the setting itself. Ratings of "clear," "simple," and "prescribed" are, in a very general way, assumed to suggest coerciveness.

These three "scales" probably do not exhaust the possibilities of analyzing coerciveness in a way subject to easy comparisons. Insofar as coercion is an inferred and theoretical consideration, one might expect more meaningful statements on coercion of settings from insightful observations, the goals of which would be to attempt to define the sources of behavior-milieu synomorphy as discussed in Section "L" of this chapter.

G. List of Major Component Subsettings

A part of the complexity observed in some settings is attributable to the existence of rather well defined subsettings. For example, the setting "Meals" has temporal subsettings which are the different meals of the day, and population subsettings marked primarily by the occupancy of the dining room by different groups of patients. For this list of subsettings, however, we refer to the major subsettings regularly occurring each time ward 7 goes to meals. Within this setting, the major subsettings include: (a) waiting on the stairs outside the dining room ("Stairs"); (b) passing in line through the serving line, picking up food ("Serving Line"); (c) the activities at the tables, mostly eating and waiting ("Tables") and (d) upon a signal from an aide, leaving the dining room via the stairs and grouping on the walk for the return to the ward ("Leaving"). These are

well defined subsettings, each of which has a synomorphic relation with its nonpsychological milieu; and each of which might be the subject of separate observation and rating. It is expected that application of detailed criteria (pp. 60-62) and the statistic, "K," (pp. 62-66) will aid in cases where subsettings cannot be readily identified on an intuitive basis.

If the simultaneous occurrence of many such subsettings contributes to an observer's impression of complexity in the unit setting, we feel that the component subsettings should be listed in order to indicate both the number and nature of such subsettings. By use of appropriate titles, the general nature of these subsettings could be communicated. Such information probably would, in most cases, greatly modify any inferences about coerciveness drawn from the coercion scales alone.

H. List of Behavior Objects Used

Behavior objects may be described as the physical and social "things" with which behavior is associated. A behavior object is considered a "Behavior-Milieu Synomorph," and specification of a behavior object includes notation as to the behavior which is commonly associated with the object. For instance, a television set, pencil, a Milltown tablet, and a key are all behavior objects.

We included a listing of the behavior objects actually used in the data to be gathered concerning settings, as this is a necessary component of the statistic "K" used to help determine the interdependence of two settings. Unless the behavior associated with the object

was unusual in some respect, such as "wall used to grind out cigarettes," only the name of the object was noted in the listing. Aside from their use in the statistic "K" we have made no further use of these lists.

Behavior objects in conjunction with the behavior defining them are considered by Barker and Wright to represent the prevailing culture through their attachment to standing behavior patterns. In view of this, it seems that further analytic use may be made of a listing of behavior objects in a setting. It appears to be uneconomic in the context of large-scale hospital studies to engage in the detailed analyses described by Barker and Wright, (1, pp. 308-322) and by Scoggen; (21, 22) however, there are other ways in which information concerning behavior objects may be used. These may include an intuitive analysis of a list of behavior objects and comparison of those behavior objects used to those available, and notation of the use of behavior objects by different population categories.

I. Impressions and Descriptions of the Physical Atmosphere

We felt that more information was needed concerning physical aspects of behavior settings. A complete description of the physical milieu of any setting would be not only laborious, but also of little value in understanding the standing patterns of behavior. Lacking any clear-cut notion as to what aspects of a setting's physical milieu might be most important, we have turned to the gathering of the following, relatively unsystematic data as a stop-gap device.

First, the observer notes his global impressions of the physical atmosphere. These are brief and descriptive of the observer's subjective reaction to the setting; for example, in observing the same setting at the same time, one observer described the "East Dayroom" as "somewhat oppressive," "generally dark," and having a "shuffling type noise;" while another observer wrote down, "bright," "background noise (T.V.)," and "messy." The differences in impressions appeared to be in part due to the observers being seated in different places.

Even if the observers had been seated at the same place, however, we would not be discouraged by the lack of observer agreement. In the first place, it is of interest to note that some aspects of a setting are capable of giving rise to variant subjective impressions, while other aspects may give relatively uniform impressions. Secondly, and more important, are the methodological development goals. It is anticipated that a large amount of this type of data could be gathered in which observers would be encouraged to maximize variation and "artisticness" through theoretical and personal biases. Qualitative analysis of this data may result in the evolution of a relatively small number of variables which, because of their consistency within settings and their variability among settings, as well as their assumed importance for behavior, might be included in a more systematic rating system.

Second, the observer is asked to write down a brief (one paragraph) description of the physical surroundings. Such a description includes

the geographic location, size and shape of the physical milieu, the major furnishings, lighting, color scheme, sources of noise, etc. No systematic use of this data is expected in large-scale studies, although rating and coding schemes could be developed to use the data in this way. It is expected that the primary usefulness of this data would be through intuitive analysis in small-scale studies.

J. Impressions and Descriptions of the Social Atmosphere

As noted in Chapter IV, the survey at present neglects social features of behavior settings. As with the physical features of behavior settings, we are unsure as to what variables will be the most important. While it is probable that existing techniques such as published systems descriptive of social groups and social interaction, or the "Social Weather Scales," may be adapted for use here, we have not undertaken to explore these possibilities. Again we prefer to resort to naive description.

The impressions are expected to be global and subjective; and variability among observers is an expected result. For example, two observers viewing the same group therapy session agreed that the setting was emotionally charged; however, one observer noted an impression of "warmth" while another noted an impression of "hostility." Discussion of this "unreliability" led to an important understanding of the setting, that a background atmosphere of warmth was apparently created in which patients could safely and directly express hostility. As with impressions of physical features of the settings, we feel that

the intuitive analysis of these impressions would be of immediate practical value and that over a long period of data gathering, ratings and classifications of the social atmosphere of settings could be developed.

The observer is also asked to write a brief description of some of the social features of each setting which seem to him to be important. In one or two paragraphs, the observer is asked to mention something of the satisfaction and dissatisfactions accruing to patients in the setting, the behavior prescribed and the behavior permitted, as well as something of the "flavor" of the setting. As with the impressions of physical aspects of settings, variability among observers is to be expected, and no immediate statistical use of these descriptions is contemplated. The primary values of these descriptions are expected to be the facilitation of intuitive understanding of settings in small-scale studies, and use of the data thus collected as a basis for later development of ratings and classifications appropriate to large-scale studies.

K. Specific Action Patterns

It was noted in the evaluation of the illustrative survey that, by virtue of their abstract nature, the 13 action patterns used by Barker and Wright seem to give insufficient information. We find ourselves unable to predict on an a-priori basis just what more specific action patterns would be of value. For this reason, we again have improvised a technique having some immediate usefulness with a view toward later development on the basis of large amounts of data collected.

During or after the time when the observer fills out the worksheet with action pattern ratings, he is expected to write down the particular activities comprising the action patterns rated. As an example of this, in a time sample of the "West Dayroom" from 1:00 to 1:15 p.m. on August 7, the total population was 34. In this setting, Recreation was rated "1" on the participation subscale and "1" on the evaluation and appreciation subscale. On a separate sheet is the notation, "Recreation:"

- (a) Pool game: 2 Psychology trainees, 1 doctor, 1 patient
(doctor evaluating explicitly)
- (b) Cards (Pinochle): 1 patient, 1 aide
- (c) Reading: 2 patients
- (d) 1 patient actively watching pool game.

It is expected that codable data could soon emerge from such notations, and may be found useful in large-scale comparisons as well as in small-scale intensive studies. In contrast to the data on physical and social atmospheres, this is concrete and verifiable data. It is expected that from it, comparisons such as the following may be made: "In Hospital X recreational activities include (in percentages of recreation person-hours), a% reading, b% card games, c% checkers, d% pool, e% softball, f% football, g% watching T.V., etc; While in Hospital Y the recreational activities are composed of" From the point of view of further development of the method, it seems possible that these specific action patterns may be logically grouped into categories at a level between the abstract level of Recreation and the specific level we have described above. We look toward this development because the specific level might easily become too cumbersome for efficient use in large-scale studies.

I. Two Aspects of Analysis for Small-Scale Studies

In small-scale studies involving one or two wards, or perhaps limited to intensive study of a few settings, both detailed numerical and intuitive analyses of settings would be in order. As parts of such analyses, we suggest the following two focal points.

1. Action Sequences. These would consist of description of temporal sequences of activities which are an integral part of the standing behavior patterns. An example of a gross action sequence in the setting, "Meals," would include: planning among the staff as to which aides will take which positions in the setting, the kitchen phoning the ward with the information that they are ready for the ward, assembling the patients on the ward, counting the patients out of the ward, the walk to the dining room, the entrance by two to four aides to the dining room through the kitchen, the measured entrance of patients into the dining room, the waiting and active phases of behavior in the serving line, the activity of aides checking on diets, checking attendance and passing out bibs, the actual eating, the waiting following the eating, the exit from the dining room, the return to the ward, and counting the patients into the ward.

It would be appropriate to call this an analysis of the operation of the setting, the logical sequences of activity which "make the setting run." These are the aspects of behavior which, combined with their recurrent nature, seem to give the "patterning" to standing behavior patterns.

2. Sources of Synomorphy. Possible sources of behavior-milieu synomorphy are discussed by Barker and Wright, (pp. 53-57) and are listed on page 20 of this paper. These are, so to speak, the reasons why the standing behavior patterns "fit" or "belong" to the milieu. For example, pacing appears to be synomorphic with the geographic area in the "East Dayroom" called "the racetrack," largely through the physical forces in the setting. Due to the arrangement of furniture in the dayroom as well as the placement of walls, this is one of the few routes long enough, continuous, and wide enough and roughly circular in shape to permit continuous walking at anything near a normal rate of speed (pacing on the racetrack would be rated "1" on the tempo subscale of Gross Motor Activity). The fact that it is a locked ward prohibits walking outdoors. In addition, the racetrack is fairly central in its location and from it, a pacer may keep track of most of the activity in the dayroom. As his route surrounds and is surrounded by chairs and tables, the pacer is at no time "isolated from the group." Pacers probably engage in more non-verbal social contact during a day than almost any other patient on the ward. Typically, they seem to be rather social, usually on a non-verbal level, in most of the routine settings entered by ward 7 patients. (The most active patients are NAC and FD), and it is possible that a desire for social contact as well as for activity are major aspects of the motivation for pacing.

These two aspects of analysis are laborious, require thorough knowledge of the settings thus described, and are not readily usable

in comparative studies. In using them, one would approach the laborious comprehensive methods outlined by Luchins. (13) In the context of studies focusing on behavior settings, we see them as limited to intensive small-scale studies, such as controlled experimentation in which the properties of behavior settings are the independent variables. There are many other techniques already developed which may be used in the analysis of particular settings. We have suggested these points of focus because they have grown out of efforts to study behavior settings specifically. Such interpretation of setting description constitutes one point at which a behavior setting survey would dovetail with sociological studies of institutional structure.

VI. CONCLUSIONS

A. Suggestions for Research

The foregoing sections represent an initial exploration into the possibilities of adapting the behavior setting survey for use in hospital analyses. In no case has fully adequate research taken place to verify the evaluative statements given as a result of this study. Because of time limitations, research was carried out only to the point where the writer had some feeling that a particular technique might work and be of value, the primary goal being that of exploration and the building up of a group of potentially workable ideas. In this section we intend very briefly to outline some of the foreseeable directions in which research might take place so that this method might be developed into a fully useful research tool. Here we will be raising questions which can only be answered by more rigorous and systematic research than we have done.

1. Reliability. Probably the first question many will ask of the quantitative aspects of the behavior setting survey is "To what extent do observers agree in observing the same settings at the same time?" Insofar as this paper is intended primarily for researchers who are not intimately acquainted with the work at Midwest and have not shared in their orientation of observers, it remains unknown at this point whether new studies would be marked by inter-observer

reliability of the same order as that found by Barker and Wright; furthermore, no formal reliability check has been made concerning any of the modifications suggested in Chapter V.

One may expect to find different reliabilities for different aspects of the method, for instance, estimates of population and occupancy time may be the most reliable, ratings of action patterns next most reliable, and ratings of behavior mechanisms least reliable. We expect the suggested ratings relevant to coercion to be rather unreliable.

In addition, it appears possible that different settings would be characterized by differing reliability of ratings, possibly highly occupied settings such as "Dayroom, East" and "Meals" giving rise to lower inter-observer reliability than small settings such as "Occupational Therapy on Ward." In addition, more coercive settings may lead to higher reliabilities than less coercive settings due to the factors which led to invention of the "Coercion scales." Whether the technique of direct observation and the associated detailed techniques would lead to higher reliability than those used at Midwest is not now known.

2. Validity. In the case of most of the estimates and ratings used in the behavior setting survey, establishment of validity is a much simpler task than it is in the case of psychological tests. The reason for this lies in the anchoring of the method to concrete physical realities. We can count the population, the time spent

there, and the number of person-hours or person-minutes each person engages in a given activity. Agreement of ratings with this counting constitutes validity of the ratings and estimates. The difficulty of the task, then, comes not from logical complexities, but from the necessity of a vast bulk of painstaking work. This would probably necessitate a rather complex system of sampling, due to the impossibility of actually counting the activities of every person in large settings. If some action patterns are characteristically over or underrated, is it by consistent amount? If so, it would certainly be of interest to discover why.

3. Trial Use of the Method. Of equal or perhaps even greater importance than studies of reliability and validity would be studies in which the method is actually used as a fact-finding tool. Throughout the development of techniques reported in this paper, we have been plagued by the question of whether this method will in fact economically point up facts of value to hospital administrators and to persons carrying out broader and more comprehensive analysis of institutional structure. The method seems to offer sufficient promise for an a-priori guess of "yes;" however, it seems that the obvious series of questions to ask is, "Is this method useful?" and if the answer is "no," "Why not?" and "Are there further modifications which will make it useful?" It seems that only by actually attempting its use will the fundamental question of its usefulness be answered.

It may be advisable first to attempt it on a limited trial basis, perhaps at first with a survey of only one ward, such as was originally

intended here. If the method "proves itself," it would seem appropriate then to broaden the base to an entire hospital, and finally attempt comparisons among hospitals.

4. Time Sampling. If "direct observation" is used, one of the questions which will have to be answered is that of what constitutes a fair sampling. At first glance, it may appear that some, less variable settings might be sampled less than others; however, this would defeat the purpose of sampling. Two or three samplings of "Morning Medications" might indicate all of the variability in standing patterns of behavior occurring in that setting, but "Dayrooms," "Outside Detail," and "Occupational Therapy" have much greater variability. The relatively small number of samples necessary to indicate the variability of "Morning Medications" would not constitute adequate sampling of the more variable settings. Perhaps the most variable settings must be used as criteria in determining adequacy of sampling schedules. It may be that settings may be categorizable into types, each type tending to demand in general a greater or lesser intensiveness of sampling. One would have to use care in setting up time samples to see that periodic shifts in population and behavior were not overlooked.

5. Specific Action Patterns. We feel that use of specific action patterns is potentially of high value, particularly to smaller-scale studies. The gathering of basic data, i.e., the notation of the particular activities comprising the more abstract action patterns, is relatively easy and involves little addition to the observers' time.

Because it is easy to gather the data, we feel that this should be done while engaged in other research, even though no immediate use of specific action patterns may be contemplated. This "by-product" data then could be analyzed at another time with a view toward the possible construction of mid-level action pattern categories.

6. Development of Molar Behavior Mechanisms. The possibility of developing more molar behavior mechanism categories is discussed in Chapter IV, section F-2. Creative thought, exploration, and research appear to us to be desirable here to develop a set of behavior mechanism categories which will have greater intrinsic meaning and give rise to generally higher reliability. It is our feeling that more molar behavior mechanisms are needed. Though we have no more specific suggestions as to what they might be, it is expected that they will have to be developed through a relatively unsystematic and artistic observation of settings with this goal in mind.

7. Physical and Social Impressions and Descriptions. It would be desirable to systematize the sort of data sought under these headings. We felt that we had insufficient time and background knowledge of existing techniques of describing physical and social atmospheres to attempt such development in the context of this exploratory study. It appears appropriate to survey literature in these areas for techniques adaptable to a behavior setting survey, as well as to develop categories and measurements out of data collected by the techniques described in Chapter V.

We see such a development as taking place in two general phases; the first phase would be one in which observers' notations of impressions and random descriptions would be collected with a view toward maximizing variability. Appropriate to this goal would be the use of a large number of observers of widely varying educational backgrounds, theoretical points of view, and personal bias. Such variability might be achieved by use of students and professionals in psychology and those of other fields; in addition, aides, nurses, physicians, patients and a random selection of volunteers might be asked to serve as observers, giving their impressions of particular settings as well as their own untutored descriptions. More permanent observers might be asked to take different points of view in writing descriptions, such as at one time attempting to maximize concrete detail and at other times attempting to maximize comparability in a number of descriptions.

From this wide variety of data thus collected, we would expect a researcher to have a better basis for judging what sorts of data would be most important and useful in a behavior setting survey. He would then begin a second phase of development which would be marked by careful control and rigorous attempts to maximize reliability and validity of whatever categorizations and measurements he tentatively sets up. Obviously, this is the very brief outline of a major research program which we would not expect to see undertaken as a part of any behavior setting survey, but as a separate enterprise.

8. Derivation of Meaning of Certain Variables from Experimental Studies. Although we have attempted to guess at the importance of a

number of the variables mentioned in the preceding chapters, we have little concrete knowledge of what relationships there may be between these variables and such variables as individual responses to a setting, and therapeutic value of a setting. No end of questions might be raised in this regard. To what extent or under what circumstances, or with what qualifying statements may an action pattern rating be said to reflect the importance of a setting? Does a high action pattern rating have any relationship to the importance of a particular setting to individuals? If so, which individuals--doctors, aides, patients? Is there any correspondence between maximization of action patterns and certain aspects of the hospital "culture" or the hospital's goals and needs? If so, what are the lines of relationship? What are the inter-relations, if any, among different aspects of the behavior setting survey? Does sheer population of a setting seem to have a coercive effect in itself, tending to facilitate some standing behavior patterns and to restrict others? In this connection, what about population density, space ratio and turnover type? When these aspects of a setting are once established, either by administrative decision or by natural evolution, do they exert a coercive influence on other aspects of behavior? In Chapter V we hypothesized that turnover type may be related to the atmospheres of settings in a rather systematic way. Is this hypothesis correct? What are the details comprising synomorphic relationships between particular settings and their standing behavior patterns?

The purpose in raising these questions is to suggest the territory as yet unexplored. Some of these sorts of questions will be answered as behavior setting surveys are used in the context of more comprehensive studies of institutional structure. Others will have to be the result of separate studies, frequently more experimental than observational in nature. Some will require intense observation and analysis of an insightful nature in their study.

At present we discern at least three general classifications of problems coming under the heading of "meanings of setting variables." These include:

- a. Relationships among variables used to describe settings.
- b. Relationships of setting variables to institutional culture.
- c. The parts played by standing behavior patterns in the phenomenal worlds of individuals participating in and observing them.

Phrasing problems in this terminology in many cases amounts to cutting an old cake in a new direction; however, it may also be that use of the general frame of reference inherent in the study of behavior settings will lead to rich, new areas of exploration.

B. Uses and Limitations

To attempt to set down conclusive statements as to the uses and limitations of behavior setting analyses is indeed an ostentatious ambition; however, a few comments growing out of our brief experience with the method may serve as helpful guides to the planning of future studies.

The study of behavior settings seems to be applicable in two general types of research. First, it appears capable of making useful contributions to broad sociological studies of institutions, providing quantitative and easily manipulated "census-type" data for analysis within the context of those larger studies, and for comparative purposes. Secondly, we can foresee the use of behavior setting data derived from the direct observation technique for measurement purposes in experimental manipulations of hospital environments.

We suggest the use of behavior setting surveys in the context of broader studies for the following reasons. The present study has been characterized by very close scrutiny of behavior settings and the techniques for studying them. Over-concern with only the variables used in the behavior setting survey can restrict one's perspective. It is felt by the writer that he has subtly lost some of his original overall view of the ward as a complex inter-relationship of living personalities, the behavior of whom is limited and guided by cultural features of the hospital. He now tends to see action patterns, behavior mechanisms and occupancy time more or less in meaningless isolation, feeling therefore that he has lost a very important perspective. Such rigorous and categorized data as forms the bulk of a behavior setting survey frequently tends to seduce researchers in this way.

Our narrow focus on the quantitative features of the behavior setting survey may tend to communicate to the reader an implicit assumption that we intend to substitute behavior setting surveys for

broader sociological analyses of institutions. This is definitely not our intention. With such a point of view it would be easy to accumulate unmanageable amounts of data from which relatively few meaningful findings would be drawn. The behavior setting survey does not give information on the majority of aspects of the patients' world which are usually considered important, such as the complex interpersonal relations implied by Stanton and Schwartz' use of the term "ecology," communication channels, details of social structure, and specific cultural manifestations such as rules, codes, etc.

Behavior setting analysis is a tool for the study of environments, and when it involves the study of behavior, it is the behavior of persons en masse, not the behavior of individuals as such. Thus, it gives only the molar "census data" to be found in the patients' environment. It is pointed out by Barker and Wright that ". . . the content and structure of a person's own psychological world, his life space, is by no means determined by the behavior setting. It is only modified in some respects." (p. 53) The purpose of intent of the behavior setting survey is to derive inferences about the modifying environmental forces from an analysis of the mass behavior exhibited in particular settings. We feel that only a broad understanding of the hospital studied would permit these inferences to be accurately derived.

It appears that a primary value of the behavior setting survey is that of a research tool used to clarify indistinct points in a broader analysis of institutional behavior. It may be used, for instance, as

an aid in determining the concrete environmental concomitants of certain policies and structures. In this, it appears to be a potentially useful part of action oriented research. For example, we regretted that time pressures precluded use of this method to study the effects of opening the west end of ward 7. We feel that such use of this method could have clarified our feeling that patients' behavior was "better" and would have also pointed up problems to be studied by other means.

The behavior setting survey seems rationally to be used near the beginning of an analysis of a ward or hospital for at least three reasons. First, it is capable of raising questions for further study, and the "census" or "reference source" nature of its data may be very helpful in later phases of hospital analysis. Secondly, successful use of a behavior setting survey does not depend to a great degree upon knowing a majority of individuals involved. For purposes of recording population categories and penetration zones, the use of informants familiar with the settings and their inhabitants seems appropriate. Finally, in the study of wards or other services feared to be unfriendly to an institutional analysis, the behavior setting survey may serve as a vehicle through which a researcher may gain the confidence of personnel involved. In this event, it would be reassuring to point out that the survey of patients' settings focuses primarily on the behavior of the patients.

For non-comparative purposes, it appears possible in the context of broad sociological studies to survey only a few selected settings which are deemed crucial in some respect. When this is done, however,

it must be kept in mind that this procedure does not allow conclusions to be drawn concerning the entire institution in which the study takes place, nor even about a larger setting of which these "crucial" settings may be a part.

How economical is this method? In a sense, this is a moot question, hinging on the intangible value of the findings drawn from the data. Therefore, the only answer we can give is an educated guess that, depending on the level of detail sought and the familiarity of the observers, both with the hospital and with the method, a behavior setting survey of patients' settings on a ward similar to ward 7 would take from one to three man-months for collection of data.

When used as an observational frame of reference in experimental manipulation of hospital environments, the procedure we have labeled "direct observation" will probably be of greatest value due to its maximization of detail and variability. Whether, or to what extent, these data could be made more discriminative is not known, but we, nevertheless, feel that their use for experimental purposes is of potential value. When the writer asked Lewis Aumack, Ph.D., what sorts of questions he, as a ward administrator, would like to have answered by a behavior setting survey, his reply was that it be used as a basis to "design a maximally therapeutic ward," qualifying this demand with mention of alternative criteria of "therapy." The behavior setting survey is more like a measuring stick than a mold; it can be used to describe existing settings, but it cannot be used directly to dictate

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the precise form of a setting, just as the measurement of displaced water cannot be used directly to construct a solid object with a given volume. We could not, for instance, without initial trial and error, construct settings with predetermined action patterns and penetration zones. Too much would be left unspecified. Nevertheless, we can describe what has been constructed in a consistent manner, determining whether we have manipulated the variables we hoped to manipulate, and whether we have controlled those variables which we wished to control. Using this approach, we may be able to attempt to determine such information as whether social contact is of therapeutic value and, if so, what sorts of social contact, and under what concomitant circumstances. It is anticipated that the experimental use of behavior setting survey techniques will be fruitful to the extent to which they are modified to fit particular problems and to the extent that they are combined with insightful observation and broad understanding of the settings involved.

The essential aspect of the behavior setting survey appears to the writer to be its selection of behavior settings as a logical basis for focusing observations. Since it is only demanded that behavior settings (i.e., behavior-milieu synomorphs) be studied, there is great flexibility in what is referred to as the "behavior setting survey." This flexibility appears to be one of the strongest assets, and allows for the gathering and coordinated analysis of a wide variety of both quantitative and qualitative data concerning the physical and behavioral features of the patients' environments. We can, however,

clearly foresee closely coordinated use of both types of raw data only in the intensive analysis of particular settings. The quantitative data is similar to a counting of physical facts. These data must be carefully interpreted and may frequently be found to be obscure or unimportant in meaning, but they do facilitate manipulation and comparison. The qualitative data, on the other hand, are more readily interpreted as the interpretation is often indicated directly in the data. These data appear to be more frequently cogent, but less easily used in comparative studies.

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VI. SUMMARY

In a brief survey of the literature concerned with mental hospital analysis, it is noted that most frequently a broad sociological approach is taken. There is a need for detailed descriptions of the immediate environments in which patients live as well as data which would facilitate intra-hospital and inter-hospital comparisons in this respect. The "behavior setting survey" developed by Barker and Wright (p. 1) is suggested as a possible method for effecting such descriptions and comparisons, and is described in considerable detail.

A behavior setting may be briefly described as an observably consistent patterning of extra-individual behavior which occurs within a discriminable part of the physical, temporal, and social environment. The method which Barker and Wright developed for describing behavior settings is essentially a system of ratings and estimates made by a participant observer.

A general description of the hospital and continued treatment ward on which the research took place is given in order to add meaning to the following discussion. Goals and criteria for a study of a ward are briefly outlined and methods, other than the behavior setting survey, attempted early in the study of the ward are described.

Using the behavior setting survey, an exploratory study of part of the ward is presented for the purpose of illustrating that method. The method and illustrative findings are evaluated in an intuitive

manner. Further modifications of the method are explored on an intuitive basis for their possible usefulness and to indicate some of the ways in which the behavior setting survey may be modified, including both quantitative and qualitative data. Directions for further research on the applicability of the method are outlined. In a discussion of some of the uses and limitations of the method, it is suggested that this method be used in the context of broader sociological analyses of institutions, and that the method may be applicable to experimental manipulation of ward structure.

An appendix includes four detailed narrative observational records taken on ward settings during the course of the study, diagrams of the physical layout of the ward and hospital and of the hospital's formal structure, and a sample worksheet used in the study with a brief explanation.

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APPENDIX A. SAMPLE OBSERVATIONS

The following observations have been classified as follows:

Narrative Observational Records vs. General Observations,
and Active Participant vs. Passive Participant.

Because of space considerations we regretfully include only four of the 34 observations made during the course of this study. These observations will be found to vary considerably in level of detail and in degree of interpretation involved. The "narrative records" are more detailed and less interpretive and the "general observations" are broader in scope, more interpretive and less detailed. Because a certain degree of clarity is lost in the detailed reporting of the narrative records, summaries have been attached to them to give some of the more molar facts and impressions of the settings observed.

In some, but not all, cases, observations have been submitted to aides or nurses for comments and criticism. This procedure usually brought little reaction other than a rather excited and pleased approval and frequently the comment, "You didn't have to give the initials; I could tell who you're talking about by the descriptions." Corrections were entirely in terms of "behind the scenes" activities of the staff. We feel that these responses speak for the validity of the observations, that is, they appear to be correct as far as they go.

After submitting the observations to staff personnel, patients' initials were coded in such a way that patients carry the same coded initials throughout all the observations.

The following observations are included in this appendix.

<u>Observation Number</u>	<u>Setting</u>	<u>Type of Observation</u>	<u>Type of Participation</u>	<u>Date of Observation</u>
10	Laboratory	General	Active	3/ 7/58
13	Dayroom, West	Narrative record	Passive	4/22/58
20	Dressing	Narrative record	Passive	5/ 9/58
33	Closed ward at canteen	Narrative record	Passive	7/17/58

Setting: Laboratory
 Time: 7:45 a.m. to _____
 Date: March 7, 1958
 Population: 94 patients

Observation No. 10
 General Observation
 Active Participant

Every two months it is necessary to take a blood count on those men who receive tranquilizers. This was scheduled for 8:00 a.m. on Friday morning. When the day shift came on duty at various times from 6:30 a.m. to 7:30 a.m., they learned of this, finding on the ward the list of 94 ward 7 patients to be taken to the lab. As ward 7 takes breakfast in the messhall from 7:45 to 8:15 a.m., these 94 patients would have to be escorted from the messhall to the laboratory and then back to the ward.

At 7:45, the Charge Nurse told me that two of the aides could not come to work today, one being ill and one having illness in his family. As the ward was short-handed, she asked if I would help in the escorting, which I agreed to do. Arriving in the messhall where the patients were proceeding through the cafeteria line, I announced my presence to the aide who was lead man for the day. He expressed thanks and indicated that he had been worried about how to get the task done, but told me they wouldn't be starting for another 15-20 minutes. During

that period, it was decided that the aide who normally conducted outside detail would take charge of the laboratory group, and the laboratory escort would also help. The Nursing Supervisor, hearing that I was to help, opined that this was not necessary and that two aides could handle the situation.

Briefly, the procedure followed was this. When the patients were finished with their breakfast, the lead aide called off the list of men to go to the laboratory. The Laboratory Escort, who knew most of the patients, checked them off as they went out of the messhall into the long, locked hallway east of the messhall. There was no aide in that hallway at the time. Because the patients on ward 7 are typically not alert individuals, many did not hear their names and had to get a special invitation from the aides in the messhall. The fact that this phase of the process was thus inefficient seemed disturbing to the Nursing Supervisor, who was present at the time. The Laboratory Escort, not being thoroughly familiar with the ward 7 men, and having to deal with a list which was unnecessarily split up into two sheets of paper, created a bottleneck at the messhall exit. Adding to his trouble were jeers from ward 4 patients seated nearby.

When all the patients were checked out of the messhall, the Laboratory Escort pushed his way through the crowd of men to the head of the line, leading the group to the laboratory. An outside detail aide brought up the rear, and the observer, whom no one instructed, decided to get toward the middle of the line, but as the group had started moving, got only through the last quarter of the line.

It was noted by the observer that on the way to the laboratory, two exits to the outside were neither locked nor covered.

In the laboratory, the Laboratory Escort was busy identifying the men as they came into the workroom. No personnel were available to control traffic flow in and out of the laboratory. When the observer arrived here, patients were crowding the waiting room. Although some organization had been established when the group was started into the laboratory, that organization was beginning to disintegrate due to pressure from the patients waiting in the hallway, and patients were beginning to crowd into the waiting room and the laboratory. Some curious patients started to wander into the office and storage room, and several, after having their blood sample taken, misunderstood the observer's directions to "go right on out to the hall," and preferring to avoid the incoming crowd in the lobby, tried to get out through the laboratory office.

One patient, who typically shows a child-like curiosity about things, NAC, began picking up urine sample cartons, peering into them; he returned to the line when asked by observer to do so. Another patient who had recently been quite active, though cooperative, FU, wandered into the office and out, then stood by the door of a storage room, staring into it. Fearing that he would become agitated if he recognized the stored brains, observer asked him to step back in line, which he promptly did. Another curious patient, WCG, began touching gingerly part of a centrifuge. Observer discovered this when he accidentally knocked a washer off of its resting place with a clank--

he sheepishly put it back and returned to the line. At this point, observer decided to ask patients to control the flow of incoming men and concentrated his efforts on directing outgoing men into the lobby and keeping wanderers in line.

It was noted with interest that there was practically no griping, irritation, or expression of resentment on the part of the patients. Although they were crowded in the hall and into the laboratory, there was little disruptive behavior observed. So far as the observer knew, no patient attempted to elope or disturbed the functioning of office work. Only a small number of men (ten or so) failed to find their way into the laboratory without explicit direction. Such potentially disruptive behavior as was observed consisted of shouting or arguing. Near the end, laboratory personnel became concerned by the heavy smoke and checked the office and storage room. A technician told me that one patient had a habit of putting burning cigarettes in desk drawers.

The return to the ward was without incident, the patients continuing their cooperative behavior. The attendance was checked in the process of administering medications upon arrival of patients at the ward.

Setting: West Dayroom
 Time: 9:22 to 10:47 a.m.
 Date: April 22, 1958

Observation No. 13
 Narrative Record
 Passive Participant

Summary. In general this is a quiet, meditative time with little activity in the west dayroom. The patients sit and stare blankly for the most part, apparently daydreaming. Some slowly seek occupations

which really hold no interest for them--for a few this amounts to endless games of checkers and solitary pool, which can begin at any time and can be interrupted without complaint or reluctance at any time. In an even less active spirit, some patients thumb through magazines or play at the pinball machines. Several patients chain smoke, and this is evidenced by the yellow and black stains on their fingers. Many patients doze off for periods of 15 minutes to two hours at a time. It is like men waiting for something that will be a long time coming--there is the quietness of boredom and the subtle restlessness as well. The atmosphere is not unlike that of a railroad station at a slack time when the walls echo tedium, although in the west dayroom there is less activity, fewer occupations, and for the most of the inhabitants, less freedom of movement. In this setting, industrious activity would be quite conspicuous.

When something happens, such as a loud or sudden noise, the entrance of the book cart, etc., many patients look up to see who or what is the source, then return without shifting position to whatever time-passing occupation they have been engaged in. The introduction of some activities receives more attention. During doctor's rounds, patients within twenty feet of the doctor tend to watch him (though there is a wide range of behavior in this respect); and some patients, usually from one to three, may follow the doctor, or move ahead of him in order to intercept his tour a second time. When the music group comes, all can hear what is going on with no trouble; several

patients in various parts of the room appear to be interested in a non-committal way, and two to four may stand and edge a bit closer to the group; however, few if any actually join the group or participate in the singing. These major activities tend to stimulate the dayroom into a somewhat increased activity level, with more pacing, getting up for cigarettes and going to latrine being instigated.

Narrative record. The observer is seated in a soft chair in front of the porch door, facing the hallway. The television is off, the radio is going continuously--popular rock-n-roll music mostly. A total of 17 patients are in the dayroom; the rest are at CT, PT, out on detail, bus ride, and "coffee hour."

One patient is playing pool alone, rather carefully and energetically. Two patients are sitting in the "poolhall," one on east wall near door watching pool player idly. The other, BAK, is seated near the porch door, looking idly around the room and out the window on the west side. One patient is standing by the dayroom door looking idly about, and eventually goes to seat by porch door. One patient is standing in the doorway area watching pool player passively--goes closer to the radio after a bit. One patient is pacing on the porch, mostly looking toward the floor. One patient, ST, is alternately sitting and standing at "his" chair half way between porch door and T. V. set; when seated, he typically stares continually straight in front of himself; when standing, he looks at feet, may adjust clothing, and peer out of the window behind his chair. One patient, DX, is

sleeping on a couch beside ST. One patient, KAC, standing idly stroking hair, wanders over to the magazine rack and thumbs through magazines carelessly. One patient is holding newspaper in reading position near south window nearest T. V. Three patients are at north table near pinball machines. Two are playing checkers, one is watching, RO, GX, and one unknown. The playing progresses slowly and for the most part quietly, although one of the patients has a loud, well-modulated voice, and brief, friendly arguments flare up in slow, rather childish tones. One patient is seated just south of the pinball machine idly watching checker game from ten feet distance. One patient is holding paper in reading position just north of pinball machine. Two patients are seated on wall adjoining hall (facing checker game) staring blankly ahead. Female aide is seated by first pillar looking idly about, looks at watch, gets up and goes to hall, meeting male aide who enters at this time. She leaves hall, a male aide enters dayroom, looks about, and seats himself at checker game facing rest of dayroom.

9:30--An aide lets two patients into ward. Both walk down the hall; one slowly takes seat in northeast corner of pinball area, staring idly about room, the other, TAG, flicks cigarette ash into ashtray near O, says "Hello," stands idly in doorway area watching pool player, speaks to male aide, who is on way from checker game to hall. Aide goes out, patient stands still in doorway looking toward porch. Male aide returns to dayroom, looks about, and returns to the checker game. Patient KAC wanders slowly into "T.V. lane" with hand at mouth, idly biting his finger.

9:35--Patient TAG approaches O, introduces self casually, mentions that he just came from ward 5 and speaks of his past history, then goes out on porch. Female aide enters, asks where patient TAG is, and immediately sees him on porch; she hands him a package of cigarettes for which he thanks her. Female aide leaves, patient TAG begins to talk to the observer again. The observer responds in a rather cool way while writing; patient apologizes for bothering him, and leaves to hall, takes drink and goes to lavatory. Clothing room worker emerges from the clothing room and leaves via hall door. Patient KAC plays pinball machine very briefly (not more than one minute), then wanders slowly to the magazine rack under the T. V. set.

9:40--Subsetting, Doctor's Rounds: Patient TAG enters ward, goes to latrine. Doctor and nurse enter ward rapidly, and nurse, with characteristic subdued excitement and cheerful manner talks to doctor as they walk to the dayroom. They stop and look around just inside the dayroom door. "Gentlemen, gentlemen, how's it going?" the doctor says. He stands before the observer, pointing at patient BAK in mock sternness which is understood as a friendly gesture by the patient. The patient responds slowly with, "Okay, how's yourself?" and a slow grin. The doctor apologizes cheerily that he's too busy to talk and breezily goes about the room, speaking to every patient who appears awake, "Hi, good morning Mr. _____, how are you today?" Two patients enter from hall, sit along west wall; three patients get up during rounds and pace, or start toward aide for cigarette. The aide watching the checker game rises--one gets the impression that the

general activity level of the room rises as the result of the doctor's rather loud, cheerful voice. Doctor and nurse leave.

9:45--Female aide enters, slowly strolls down hall into dayroom where she sits at first pillar facing dayroom door. Patient VBU enters ward with clothing baskets, puts them in the clothing room, then comes slowly and directly to the dayroom. He speaks briefly to female aide, leaves grinning to the clothing room.

9:47--Patient KAC stands near female aide, takes off sweater slowly and hands it to her. She speaks to him pleasantly as she takes the sweater to the clothing room. Charge aide enters, speaks briefly to female aide in hall, to janitor, and then leaves. Janitor enters dayroom, picks up small bit of paper and drops it in ashcan. Patient VN enters from off ward, stands idly in doorway area. Patient MDL wanders in from the hall, stands near pool table. Female aide enters and patient sitting at porch door asks for a cigarette. While she is getting one out, patient VN approaches, asking for a light (in a very weak voice, supported by the positioned cigarette), and patient MDL comes to female aide with extended hand which is commonly accepted as a request for a cigarette. Aide passes out the cigarettes and lights them. Patient VN moves aimlessly to doorway area, standing there flicking ashes onto the floor. Male aide enters briskly, glances about and approaches female aide, asking her if she knows where patient TRM is. She calls out the name, looks carefully about the room and goes to the porch door, looking out. It is decided that he is at the "coffee hour," and male aide leaves.

9:53--Patient who was seated just south of pinball machines gets up and approaches female aide for a light. Six patients from PT enter ward as a group, and as a fairly close-knit group walk with moderately fast speed down the hall to the dayroom, entering and going directly to seats in different parts of dayroom without pausing at door, but some looking about as they entered. One patient wanders slowly back to hall and to drinking fountain; he drinks and goes to lavatory. Patient KX gets up from seat northeast of pool table and waddles over to female aide, asking for cigarette.

A brisk, cold wind sweeps through the dayroom; the female aide gets up and closes one window, speaking to patient as she does so. The lead aide enters ward, walks in a casual, yet business-like, way to the dayroom. He calls out in a moderately loud voice, "Let's go, bus ride. Bus ride, come on, let's go on the bus ride." Several patients get up and leave quietly, not as a group, but as massed individuals. One patient asks if he can go. The lead aide says that his turn is on Thursday. The lead aide asks another patient if he wouldn't like to go. Patient appears ambivalent, but goes with aide's encouragement. All for bus ride go out. There is a slight argument heard from the checker game. The radio continues to play with no one obviously listening.

10:00--Patient TT enters from porch, goes to couch on south wall near magazine stand, lies down. Patient ST stands, paces slowly but deliberately to porch door and looks out. The patient who was

"reading" a newspaper north of pinball machines fairly briskly goes out of dayroom to latrine. Patient KAC plays pinball machine listlessly for less than one minute, turns it off and continues to pace very slowly and aimlessly around room. Several patients enter ward from CT, their coats wet from the rain. They come down the hall singly, each pausing briefly just inside the doorway to look around. Patient MAM enters in a direct way from the latrine, goes to "his" seat by the pinball machine, sits down looking around brightly, then settles into staring blankly.

10:07--Eighteen patients in dayroom: 10 sitting staring into space, 2 sitting sleeping, 5 lying down on couches, 1 sleeping on floor.

10:09--Subsetting, West End Music: Six patients (from other wards) and music director enter with piano. They come down the hall in a compact group, swing piano into dayroom with a cheerful flourish, and gather around piano. He announces a selection, and they sing "It's a Good Day" in a coordinated, spirited fashion. Four of the group are close to the piano facing it, one stands apart from the piano facing toward the pool table, one sits at first pillar facing doorway. Patient KAC wanders by the pool table disparagingly, says "Christ" softly, stands by the pool table looking half down and half up at the singing group with a slightly embarrassed smile. Two patients, VN and ST, stand up and watch group from a distance of six to ten feet.

10:14--Male aide approaches pool table from checker game and plays pool alone. The singing group takes up "Let's Take an Old-Fashioned Walk." Four patients are seated along west wall watching the singing

group; one stares into space. Patient KAC watches aide playing pool, picks his nose and talks a bit to the aide. Singing group sings "Stay With the Happy People." One checker player, RO, gets up and goes to aide with unlit cigarette. Aide, apparently not seeing the patient, goes out into hall. Patient follows him with unlit cigarette in mouth. The aide leaves the ward, and patient stops at drinking fountain and enters the latrine. The singing group finishes and starts to leave--it is apparent they feel uncomfortable and not well received (no patient had approached them or sung with the group). The observer at no time heard a request for the patients to enter in the singing. One patient seated along south wall applauds music director and one singing group member calls "Thank you," seeming rather lonely and unsuccessful.

10:16--(Note: In the observer's opinion, the music group is of more value to the patients than is apparent on the surface. It was not made perfectly clear to all that the group wanted patients on the ward to join in the singing, but, nevertheless, the patients did pay attention, several appearing to the observer to be wanting to join in, but very ambivalent about committing themselves so far as to make the first approach. It would seem that if the aide or the observer had entered into the spirit of the group instead of playing pool and observing, and had actively encouraged some of the patients to also enter into the singing, the group with this much stimulation would bring about a marked change in the apparent effectiveness of the singing group. It is less likely that patients

with the singing group, not knowing the ward 7 patients as well and not being so well known by the patients, would be quite as successful in encouraging participation as would regular ward personnel, particularly minor authority figures who would be indicating that singing with the group would be acceptable behavior.)

The remaining checker player, CX, calls across the room to the observer, "Hi Doc." The observer answers, "Hi, Mr. X_____." The patient asks, "How many thousands of years do you suppose a man's got to stay in this penitentiary?" He talks on in this vein for several minutes, the observer responding noncommittally. Male aide enters dayroom. Patient CX calls out, "Come on Dorothy Dix, play a game of checkers with me." Aide claims that he is too busy and points to patient RO, who is entering, saying, "Here's a man who can play with you." Patient pointed out says that he doesn't want to play (had been playing all morning). Patient at checkerboard pouts, "Well, we won't play checkers then." Patient RO sits down and they play checkers. A patient lying on his back on a chair with his feet propped high on the west wall of the pool table area begins to laugh; another patient laughs simultaneously with him. It is not clear whether this is social interaction or more of the nature of "parallel play." Charge aide enters and asks about some activity. He, the male aide, and patient DX leave ward together. For a few minutes there is comparative silence. Patient with feet on the wall is still chuckling; there is the sound of checkers clicking together idly; there is the sound of talking from downstairs. Patient who was

laughing with another patient goes toward T. V. and speaks to someone. Patient ST stands up, paces near his chair. An occasional affable grumble from checker player GX is heard. A patient leaves the dayroom, going to the hall. Patient ST paces to the doorway area, looks down hall, paces back to his chair, sits down, stamping his foot.

10:24---Checker player GX whistles tunelessly. Patient VN is reading magazine which lies on pinball machine. Patient KAC slowly walks from latrine toward dayroom, carelessly tucking in shirttail as he walks. He enters slowly and turns on the radio, paces slowly away toward the T. V. set. Radio has newscast to which no one appears to listen.

10:25---Two patients are lying on couches in "pool hall," one staring into space. Two patients are sitting in soft chairs in pool hall staring into space. One patient is lying on back in chair in pool hall with feet up on wall. One patient is sitting facing doorway area, looking idly around the room. One patient, ST, is alternately sitting and standing up, peering out the window, alternately slaps chair arms in restless, irritated manner. He stamps feet, stands, adjusts sleeves and sits down. One patient is sitting along west wall staring into space. One patient is lying on sofa near T. V. set. One patient, VN, pacing, looks curiously at the observer, wanders to the T. V. corner. One patient, KAC, wanders to table nearest T. V. set, plays idly with checkers there, stacking them, picks two National Geographics from magazine rack, puts them on a soft chair and leafs through them briefly, leaving them there as he walks away.

10:30--One patient under south window is staring into space. One patient sitting by south pillar is staring into space. One patient, QL, is curled up in chair by first pillar idly studying fingertips of left hand. One patient is sleeping on floor. Patient TCL is reading in chair by second pillar. Patient KAC is cursing softly while pacing. One patient is sleeping in chair under southeast window. Patient MAM is sitting by south porch door staring into space. Two patients, RO and GX, are playing checkers quietly. Patient KAC starts pinball machine, runs it perhaps two minutes. One patient is seated in northeast corner, staring into space. Patient who was lying upside down is now across pool hall sitting in soft chair with feet propped up on hard chair, which is braced against pool table--appears to be sleeping. Sound of classical piano music is heard from ward 6. Patient KAC turns radio up briefly, turns it off, and slowly goes to couch on west wall and lies down. Patient FW gets up from couch on west wall, goes to pool table and slowly positions balls on table and begins shooting. Patient "sleeping" with feet on chair in pool hall goes to latrine as patient FW plays pool. Patient VN goes to chair just north of door and slouches down. There are 21 patients and one male aide in dayroom.

10:36--Patient watches pool player idly for a short time, then stares off into space.

10:47--Subsetting, Book Cart: A three-wheeled cart with trays for papers and magazines and five two-foot bookshelves is wheeled

into the ward by an open-ward patient, accompanied by two volunteer librarians. As they wheel the cart in, one patient, ST, asks for a newspaper. The book cart patient gives ST the paper he wants; the two women huddle at the magazine rack, checking the supply, followed by the man with the book cart. There they exchange books and magazines, huddled into a tight little group, facing the magazine rack, seemingly protected by the book cart. One patient approaches, asks for a magazine, and is given one. The man with the cart calls out rather weakly, "Anybody want any books?" One patient approaches and asks for a particular book which the cart does not have. The book cart and its attendants slowly stroll out, pausing in hall to chat with the clothing room man. They leave the ward chatting and laughing pleasantly.

10:57--Incidental Observations:

1. Entrance into the dayroom is usually marked by the person entering, stopping just inside the door to look around, pausing briefly or at least slowing his steps and glancing--usually first to the right toward the pool hall and then to the left. Of sixteen consecutive entrances, one of these forms of behavior occurred in thirteen, the remaining three being direct entrances at a normal walking rate, that were suggestive by their nature of having more direction and purpose. It seems that pausing and glancing about always occurs in patients and staff alike, except under the following conditions:

- a. entrance with a group
- b. when entrant has left dayroom a short time before, having gone on a routine errand, i.e., to latrine or drinking fountain.

c. when entrant has specific geographic goal in mind at time of entering

d. patients who appear extremely confused and/or preoccupied.

The observer tried to enter after a trip to the drinking fountain and found it almost impossible to control the impulse to slow down and look both ways when coming through the doorway.

2. Entrance of men from outside detail. This gives the impression of a more active and healthy ward; however, it seems that few, if any, qualitatively different action patterns are introduced (there may be some social conversation among patients, and more likely there is some between patients and aides). The T. V. set is turned on. But the impression seems to arise primarily from the fact that there are simply more patients doing essentially the same things at the same rates of speed. At 11:45 (15 minutes before lunch time), there seemed to be an increase in the speed of activity.

11:12--3. Doctor enters, plays pool with patient. Happy, casual chatter about the game as they play, both doctor and patient participating in this. The doctor tends to be more complimentary and speaks louder and more distinctly than the patient. Both are good pool players. Some other patients in the area look on silently, participating as audience only. During this time, the ward has a more active general atmosphere, although the behavior of most patients is unchanged by this activity (it may be that pacing is somewhat faster at this time).

Setting: Waking and Dressing
Time: 6:10 to 7:00 a.m.
Date: May 9, 1958

Observation No. 20
Narrative Record
Passive Participation

Summary. Patients are awakened by aides at 6:10 a.m. Usually two or three patients are up before this time. As they arise, patients go to the latrine, to the dayroom where they have left their clothes, or stay in the bedrooms to make their beds before dressing. The majority completely or nearly dress themselves; some 35 are aided to varying degrees in dressing. As soon as dressed, most patients engage in the behavior typical for the entire day--mostly sitting and possibly smoking, patients being allowed to smoke only after they are dressed. At about 6:45 a.m., when most of the patients are dressed, luxuries are passed out by an aide who stands at a table in the doorway area surrounded by a tight knot of 15 to 20 patients. About 7:00 a.m. the bedroom doors are locked and the patients are gathered at the end of the hall to await the kitchen's call to breakfast.

In general, one gets an immediate impression of massive, slow-moving confusion. Most patients are sitting and doing nothing apparently purposeful. A few adjust their clothes or smoke. Many patients are pacing aimlessly about the room at varying rates of speed. Aides rush in and out, and unless one knows something of the problems which particular patients have in getting dressed, the initial impression is that the aides too are rushing about in an aimless fashion.

In winter months the air is blue with cigarette smoke and quite warm; the fluorescent lights impart a bright blue harshness to the room.

There is noise from the radio which is all but drowned out by the noises of patients talking to themselves, aides talking to patients, a very few patients talking to each other, an occasional brief argument, and similar noises coming into the dayroom through the fire exit from the ward above and the ward below. In the hallway, there is a strong odor of urine, which is on the floor before aides get time to mop up and in many soaking bedsheets. In general, the physical atmosphere is quite unpleasant. This is not, however, explicitly reflected in the behavior of the patients who only seem more agitated than during the day.

Narrative record. At 6:10 a.m., the aide turns on the light in room 213 and calls in the patients. This is the male aide. There are two female aides and one male aide. He then goes to room 211 and calls in that it is time for them to get up. Five patients immediately get up, most of them yawning. One patient gets up slowly. Four of these run immediately to the latrine; one sits on the edge of his bed; one lies in bed about one minute and then slowly gets up. Two patients come back from the latrine and strip their beds, one then making his bed neatly and carefully. One more patient gets up.

6:18--Two patients are making their beds in room 211; one makes his very slowly and carefully, the other quickly and casually, yet fairly neatly.

6:19--After three minutes, patient XR is still working at making his bed. He notices that the split in the rear of his union suit is unbuttoned and buttons it and returns to making his bed.

6:20--Room 207, soiler room: Patients have already been awakened, approximately five minutes before. There is a stack of clean sheets just inside the door of the room. Of 15 beds, seven patients are still in bed. At least two of these are obviously awake. One bed is noted to be soaked with urine; another bed has a long stream of urine running from the bed to the center of the room on the floor. The windows are open about one foot. One patient, NK, who has not previously been seen to move, very suddenly jumps out of bed and bounces into the hall. One patient lies awake; his eyes are wide open and he moves freely. This is DB.

6:26--The aide enters and shouts, "Let's go men," as though it were an emergency. Three patients get up, leaving four patients lying in bed. One patient grabs the covers and rolls over. This is DB again.

6:30--Room 203: Patient, FC, patient TZ, and three others are still in bed. An aide enters and says to TZ, "Let's go Z _____." The patient clenches his fist and stretches it toward the door where the aide was. This seemed more of a stretching movement rather than a threatening movement.

6:35--Eight patients sitting in the fire exit area, one of them coughing. Three patients are standing in this area; two of them are dressing and one of them is just standing. In the doorway area, two patients are sitting. They appear fairly alert. In Recreation Lane, 11 patients are seated; the aide is dressing one of these, NAC. Two

patients are standing; the female aide is putting a belt on one of them, DEW; another patient is standing in front of his chair and one is lying down on a couch. In the race track and bleachers area, 18 patients are sitting down; three are lying down on couches, 7 are standing; three patients enter this area and sit down. One approaches the seat where patient OAG is sitting; this is a new patient, NN. OAG gets up and moves off to another chair. There is no verbal contact between them. And this, as is frequently seen on the east end, has the appearance of circumstantiality more than social dominance. One patient is sitting on the floor in the hall; five patients walk from the hall to the day-room.

6:40--Room 207: Two patients are making beds. This is the soiler room. An aide enters with mop and bucket and says to the observer, "Boy, it looks like a river here, doesn't it?"

Room 209: Patient TZ, mentioned previously, has his shorts on and slowly gets up from the bed and waddles to the lavatory. Another patient enters and begins making a bed. He puts the bedclothes first on a bed on the other side of the bedroom and takes the sheets one by one, putting them on the bed that he is making. Patient XR drags a mop bucket full of water out of the washroom. An aide asks, "Hey, what are you doing with that?" The patient looks up in a way that suggests both confusion and sheepishness, and a desire to explain his action. The aide busily puts the bucket back into the washroom and the patient wanders in an aimless fashion into the latrine. Three patients stand in the latrine, each one about four feet away from

a toilet. They stand there as if rooted, hardly moving at all. One is loudly groaning something that is unintelligible.

Room 203: One patient is making a bed. Twelve beds are made. Patient MW is making them.

Room 212: 6:46--Six beds are made.

Room 211: Six beds are made. The aide comes by and locks it.

In the hall, one patient vigorously sweeps with a dry mop. The male aide here has been mopping the soiler room; he brings the mop and bucket back to the latrine, looks at Patient XR, saying in a rather irritated tone, "If you want this now, here it is." Patient KAQ comes quietly into the latrine and hands patient XR several squares of chocolate. Neither patient speaks.

Room 202: All beds are made; the aide locks the door.

Room 207: There is still a strong smell of urine. Twelve beds are made. One patient, TBL, is seated on a bed. Three patients are standing in the hall. One patient, YL, approaches the observer and holds out a candy bar to him, saying "Want some?" Observer declines. Most of the patients are in the dayroom. One patient speaks out very loudly and sharply. He appears to be hallucinating. When the noise starts, the aide looks up sharply, sees the situation in a glance and returns to passing out the cigarettes to the patients. Patient DAG comes up to the aide, talking of the Rose Hotel and the usual line of patter for this patient. The aide shakes the patient's hand and says, "I'll buy it, O _____," with a grin. Patient OAG offers candy to patient YL in the same way he offered it to patient XR, and patient YL

takes the candy. Patient FU, pacing the race track beside patient NAC, rubs patient NAC's bald head. Patient RD paces from the race track to the doorway and then goes to the magazine rack, takes a newspaper and holds it in a reading position while walking around the race track. Patient JR gets up from a chair, goes to the latrine, and returns quickly.

7:00--All patients are dressed and luxuries have been passed out. A female aide at the central hall door calls out, "Come on to Breakfast" in a voice which is barely audible in the doorway area of the dayroom. The observer standing in the doorway area repeats the call in the dayroom, and all but about 20 patients get up and go into the hall. The observer then walks into the bleacher area, telling three men who are seated in a row that breakfast has been called. He says this in a quiet, informative tone. Fifteen men seated in the bleacher area get up and leave the room. The observer tries unsuccessfully to get patient DAU up from his chair to breakfast. Because patient DAU does not respond, the observer then speaks rather loudly and sharply. There is no indication that the patient had heard this commanding invitation. The female aide comes in and quietly and brightly in a very gentle way says, "Come on Friend D _____, you want to eat breakfast this morning?" She holds her hand out in front of the patient. The patient grabs it with one hand in a firm grip and gets up slowly, but with a cooperative spirit and a smile on his face.

In the latrine patient XR is still mopping. An aide tells him to finish this later and come on now. Patient XR says, "Yeah, okay, okay,"

in a slow, pleasant way, and leans the mop against the wall and comes into the hall.

7:10--All patients are out of the ward.

Setting: Closed Ward at Canteen
Time: 9:55 to 10:25 a.m.
Date: July 17, 1958
Population: 75

Observation No. 33
Narrative Record
Passive Participant

Summary. Twice each week nonprivileged patients are brought to the canteen where they buy fountain items, hamburgers, and coffee in the coffee shop, and incidentals such as cigarettes, candy, and post-cards in the store. Hospital "canteen books" are used as the medium of exchange. The mass flow of patients is in the door, and up to the door of the coffee shop where they crowd very closely, but patiently, to get in and get up to the counter. The crowd at the counter seems to be primarily responsible for the waiting at the door. A patient on receiving his order locates a seat if one is available and eats. When finished with his drink, he goes out into the center hallway to await the return to the ward. Usually, three or four patients go upstairs to the music room or to the library to wait. Going to the canteen is a compulsory activity for all east end patients.

The greatest impression is that of crowding. Thursday canteen trips frequently overlap with staff and working patients' coffee breaks, accenting the crowded condition. The canteen has a pleasant, cheerful, yet businesslike atmosphere. Disturbances are relatively frequent, usually occurring two or three on each trip to the canteen.

These disturbances are nearly always brief and usually limited to heated exchanges of words. Incontinence in the canteen is exceedingly rare, occurring only once in the memory of one lead aide and the storekeeper.

Narrative Record. Seventy-five patients enter the canteen. An aide comes in with the first ones saying something about checking the doors and rushes into the canteen and stands beside the rear entrance. There are some staff and member-employees and open-ward patients still in the canteen. Patient WBG pauses to get a light from some ward 8 patients, one of whom says, "What are you doing on 7?" and patient WBG mumbles a reply. They talk briefly and patient goes on. Most of the patients wander into the coffee shop. About ten go into the PX, where they buy such articles as cigarettes and candy. A couple of them go upstairs and sit on the davenports in music room or library. There are 24 men standing at the end of the short hallway, facing toward the coffee shop door. An aide stands in the door of the barber-shop, facing the patients. There are ten patients in the entrance hall standing near the doorway. The aide tells the observer they have brought over 75 patients.

9:55--Patient VAU approaches the observer, asking for a cigarette; the observer gives him one and lights it. Patient moves on. Two doctors and a patient come out of the coffee shop through the crowd. Inside the coffee shop there are, besides the observer, two psychology trainees, two privilege card patients from ward 7, 28 patients from ward other than 7--most of them seem to be ward 4 patients-- , three

counter workers and one bus boy. There is an aide at the door and another aide is at the counter helping the men explain what they want. Patient OB grabs patient KAQ by the neck and cusses him out. By this time two aides and a nurse immediately approach, one of them shouting out the offending patient's name. An aide speaks to him quietly and briefly and the incident is closed. There is a brief discussion between two aides as to whether the screen door leading from the coffee shop should be locked or not. It is not locked, but an aide guards it. Two patients enter the coffee shop briefly and go on. At 10:05 there are still 25 patients at the serving line. Patient BR is talking to the two psychology trainees. Privilege card patient PR enters the door to get coffee. Patient TCL sits with a cup of coffee looking around the canteen. Patient DC is sitting at the same table with BR and the trainees eating pie and coffee. Patient QT is also there. He has a coke and a hamburger with potato chips. Patient TBL has coffee and pie. Patient LAM is standing and sitting alternately. He has a cup of coffee and a doughnut. Eight patients from ward 4 leave by the front way. They are all privilege card patients. Patient MQ sits with a canteen book before him, looking around the room. Patient LBM sits away from the table with his head just above his knees. He appears to be dozing. The aide approaches patient MD and asks if he got what he wanted. Apparently the patient has not. The aide takes the patient's canteen book and gets him a hamburger. The aide returns to tell the observer that the patient had ordered the hamburger and was sitting down to wait for it. Patient OAG has a coke. He sits looking

around the room. Patient QZ has coffee and a cigarette. He sits staring mostly at his cigarette. Patient MW, a privilege card patient, sits beside a table with a cup of coffee, looking rather blankly at the crowd of men at the serving line. Patient NBC walks away from the serving line with a chocolate soda and sits down and begins drinking through a straw. Patient TAW paces in the small aisle space in front of the jukebox, looking at his book and smoking a cigar. Patient KAO approaches the nurse and asks her if she has his canteen book and she looks in his pocket to see if it is not there. She finds that he does not have a canteen book among the several books she has in her hand. Patients sometimes leave their canteen books lying around, and they are returned to the nurse by other patients or by an aide. Other patients approach the nurse and hand her their canteen books when they are through purchasing. Patient SL is finishing a coke at 10:10. Patient DM is standing by the jukebox, pacing back and forth. He walks up the aisle, speaks violently to the staff, still speaking as he walks away from them and out into the hallway. Patient DBW is sitting at a table with no food or drink, just sitting looking around, mostly toward the serving line. Patient KAO again approaches the nurse, looking for his canteen book. Patient BAZ sits motionless, staring straight ahead. Patient NO moves away from the serving line-- it is not recorded what he has. A patient carries a chocolate shake from the serving line to his seat. Patient MEL sits stolidly, facing the main door to the canteen. He is probably looking straight ahead.

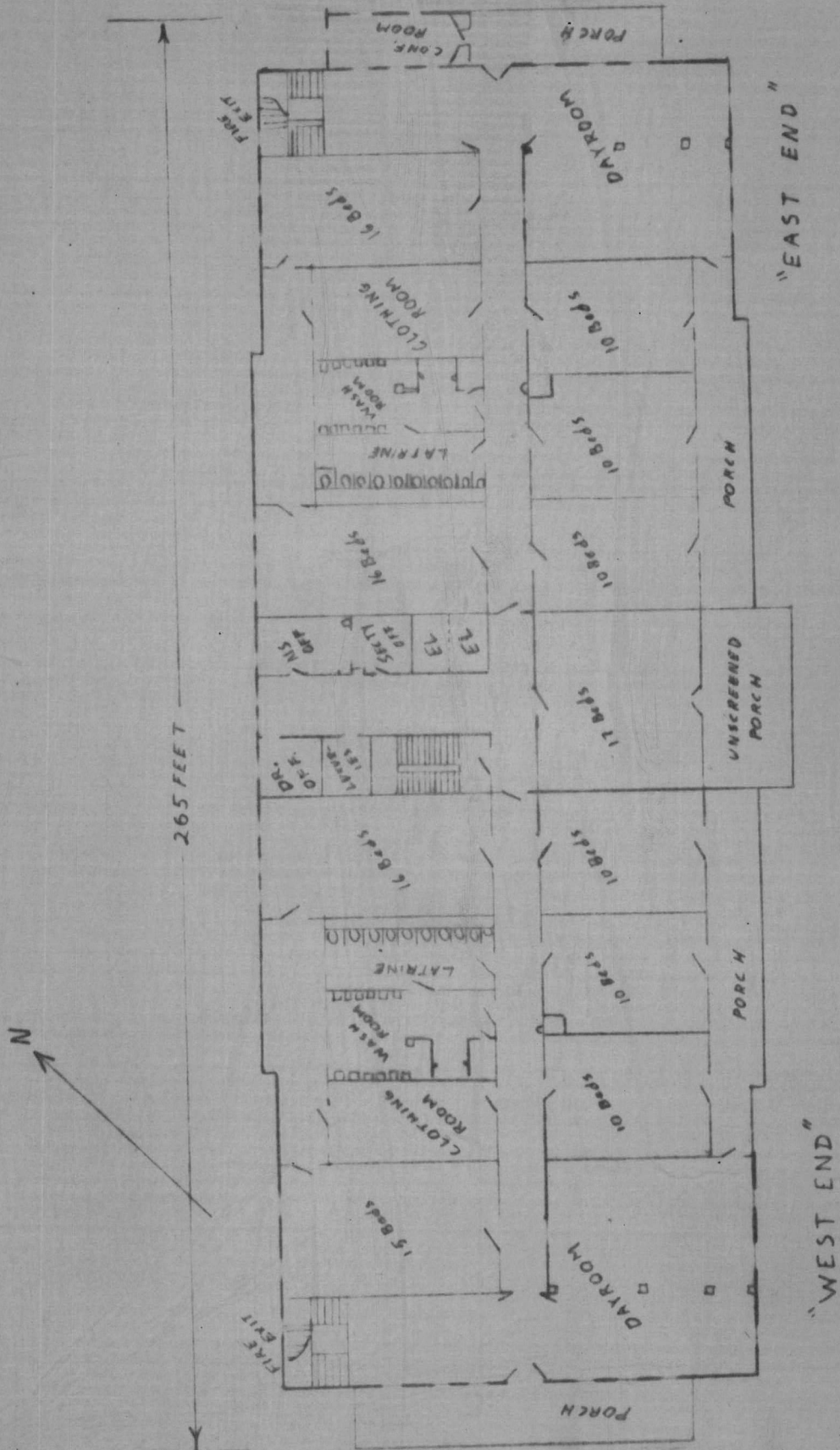
Patient NAC sits with his elbows on his knees and his hands clasped over his bald head. Patient OK approaches the nurse and gets his canteen book. Patient GAY asks for a hamburger. The waitress asks if he has money. Patient very slowly pulls a canteen book out of his pocket, and the waitress tells him, "If you don't have money, you can't have a hamburger." Patient starts to turn away with a sorrowful look on his face, and an aide calls to the waitress, "He has money, he has money." He goes over to the patient and holds out his hand beside the patient's pocket and patient pulls out a canteen book and gives it to the aide, who gives it to the waitress. Patient KBL sits down with a banana split, looking around. The nurse asks patient RD if he has had something. He mumbles while pacing near the refrigerators. The aide walks up to him to try to hear what the patient is saying, but notices some milk just under the patient's nose, and calls back to the nurse with this information. Patient continues to pace around in that general area. Patient BC wanders around in the aisle rather aimlessly. Patient JR turns away from the serving line with a chocolate soda, grinning. 10:15--Privilege card patient VDU sits down with a cup of coffee. Privilege card patient BBP is standing at the juke box. Patient BAP is standing by the door with a coke. Patient OAL is standing by a table with a coke. Patient JR has apparently returned to the counter and stands there with a soda. Patient MD stands at the counter drinking a coke, then moves away. The aide moves around the patients who are standing at the serving counter, asking if they want something.

In the center hall there are 41 patients plus one aide guarding the door. Most of the patients are standing in the hall motionless; perhaps ten are pacing back and forth. Three patients are sitting on the stairway steps. There are probably a few patients upstairs. There are two ward 7 patients in the PX now. The storekeeper has no idea how many patients from ward 7 have been into the store.

10:20--The observer chats with a special service worker and at 10:25, the observer leaves.

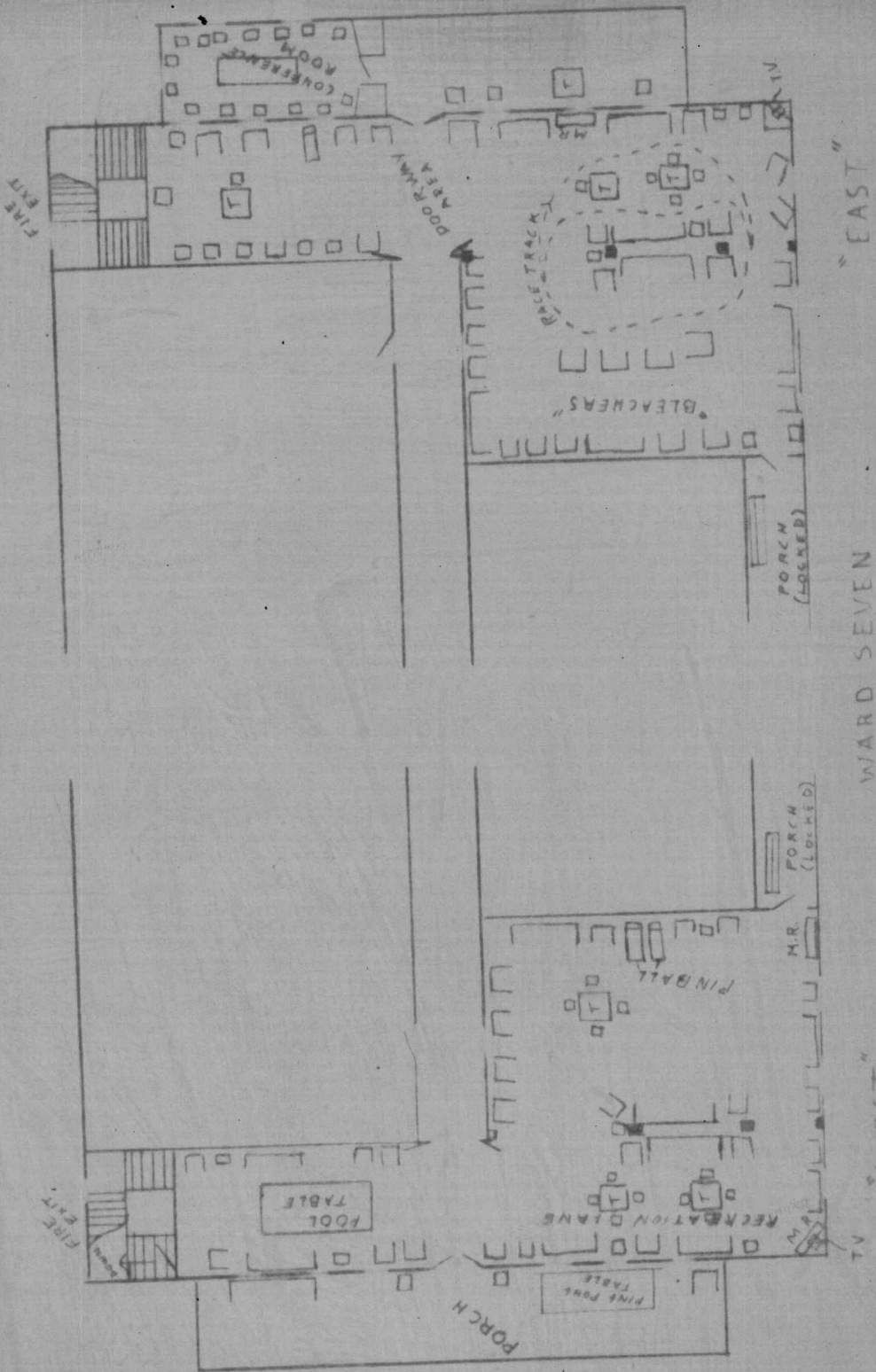
APPENDIX B. LIST OF DIAGRAMS

1. Ward 7, Physical Arrangement.
2. Ward 7, Dayroom detail.
3. Approximate arrangement of hospital grounds.
4. Formal organization of hospital.



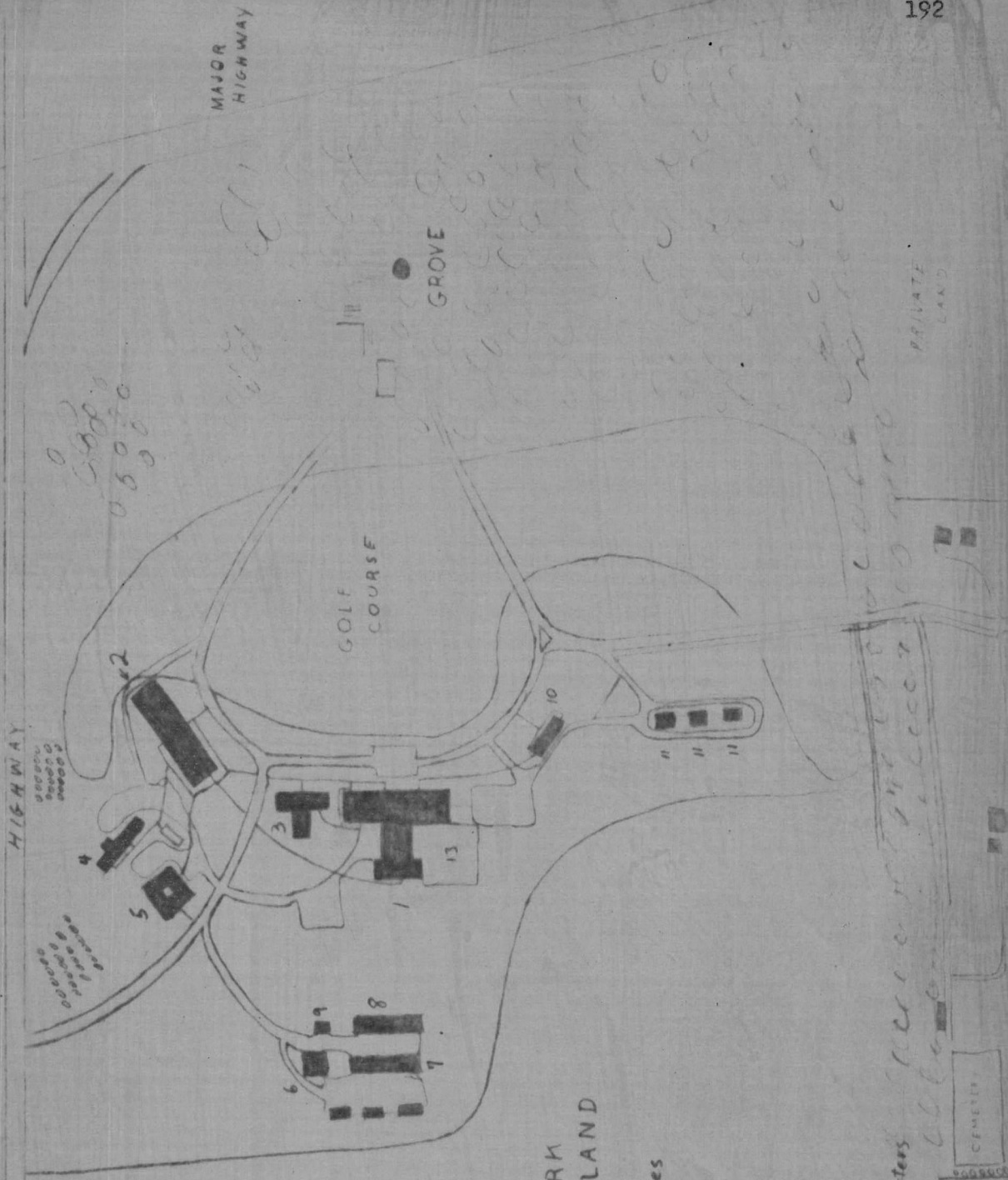
WARD SEVEN

2nd floor of Bldg #2



- Soft chair
- Hard chair
- Couch
- Table
- Magazine rack
- Raincoat rack

WARD SEVEN
DAYROOM DETAIL



CITY
PARK
LAND

- Guide
- 1. Bldg #1
- 2. Bldg #2
- 3. Recreation Bldg
- 4. Chapel & Social Services
- 5. OT. & MAT
- 6. Power Plant
- 7. Engineering
- 8. Laundry
- 9. Garage
- 10. Nurse's quarters
- 11. Doctor's quarters
- 12. Male Employees' quarters
- 13. Fenced ball diamond

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PRIVATE
LAND

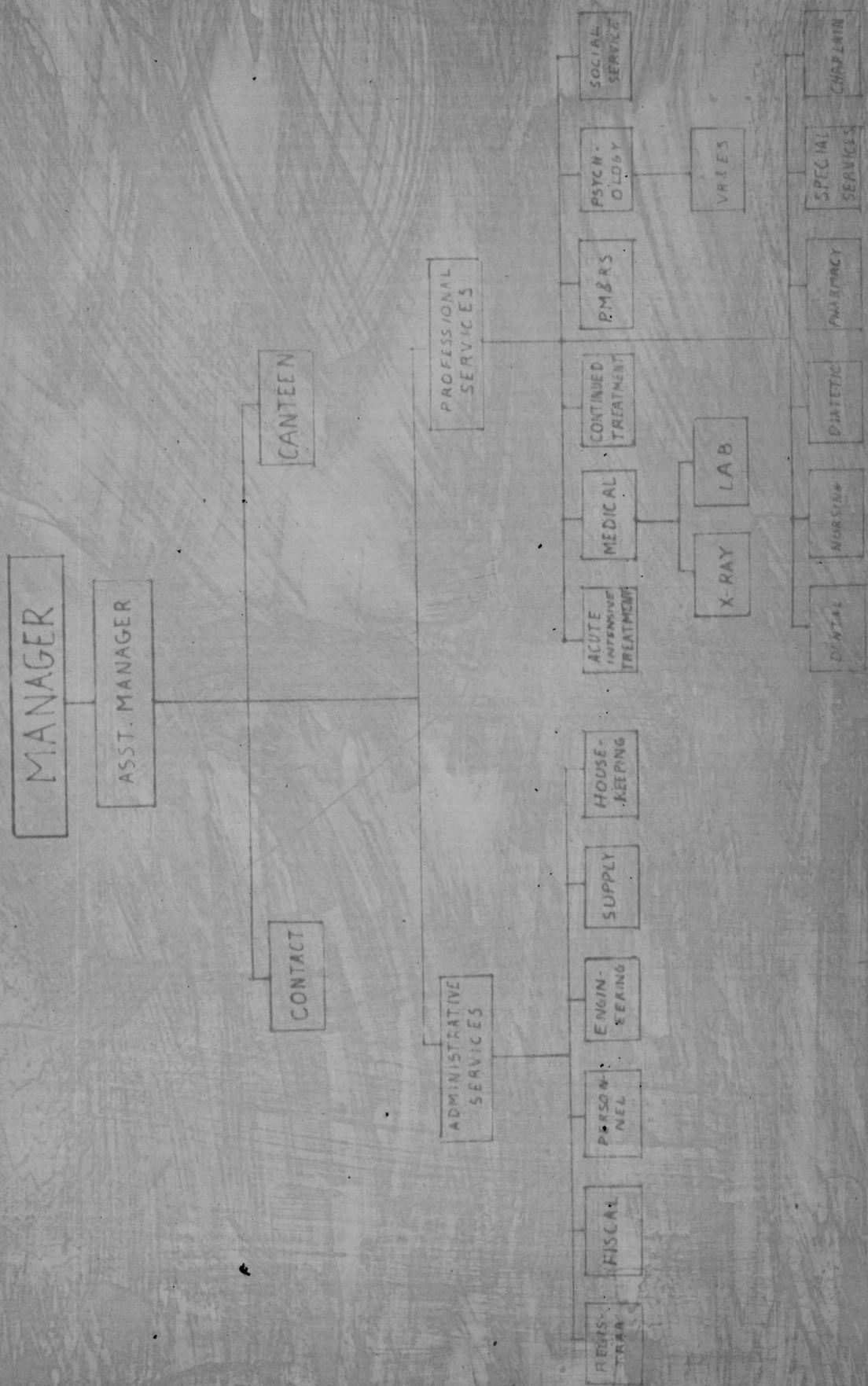
CEMETERY

GOLF
COURSE

GROVE

HIGHWAY

MAJOR
HIGHWAY



APPENDIX C. LIST OF POTENTIAL BEHAVIOR SETTINGS

Following is a list of potential behavior settings in the hospital which were frequently or regularly populated by ward 7 patients as of March 1, 1958. The term "potential" is used here because in almost all cases the requisite rigorous procedures for eliminating nonsettings and for determining interdependency of settings have not been applied.

This list was compiled in the following way. First, information as to potential settings was gleaned from records, informants, and some casual observations. A list was then constructed using the physical arrangement as the first frame of reference. Within this frame of reference, scheduled activities were then listed under the heading of the appropriate physical area. The resulting list was presented to the ward administrator, the ward nurse, and a lead aide for corrections and additions. The list was later converted into its present form.

Notations used in the present list indicate whether special procedures are considered necessary for elimination of nonsettings or establishing interdependency, and to indicate those settings which have never been formally nor informally observed by the writer. Those settings for which there is no notation are felt by the writer to be readily discriminable. The "East End" and "West End" settings having the same titles are considered to have a high degree of similarity with those of the "other end of the ward."

List of Potential Behavior Settings Open to Ward 7 Patients

I. On ward settings:

A. East End

1. Dayroom, general (Need "K" with hall and porch)
Major Dayroom Subsettings (Need "K" of each with dayroom, general).
 - a. Dressing (Need "K" with getting up)
 - b. Luxuries
 - c. Doctor's rounds
 - d. Noon medications
 - e. Bedtime medications
 - f. Haircuts
 - g. Gospel singers
 - h. Book cart
 - i. Pop corn (not observed)
 - j. Undressing
 - k. Ward parties (not observed)
 - l. Dance (not observed)
2. Night time (Need "K's" among hall, bedrooms and latrine)
Major subsettings
 - a. Going to bed and sleeping--all bedrooms
 - b. Night table area--aide's activity
 - c. Soiler room activities
 - d. Urine specimens
3. Bed check
4. Getting up
5. Shaving
6. Showers
7. Laundry count
8. Latrine
9. Washroom
10. Back Porch

11. Group Therapy
12. Ward Conference
13. Bed making and changing
14. Janitorial work in unpopulated areas
15. Clothes room

B. West End

1. Dayroom, general (Need "K" with hall and end porch)
Major Dayroom Subsettings (Need "K" of each with dayroom, general).
 - a. Dressing (Need "K" with getting up)
 - b. Luxuries
 - c. Doctor's rounds
 - d. Noon medications
 - e. Bedtime medications
 - f. Haircuts
 - g. Book cart
 - h. Pop corn (not observed)
 - i. Undressing
 - j. Ward parties (not observed)
 - k. Dance (not observed)
 - l. Movie on ward (not observed)
2. Night time (Need "K's" among hall, bedrooms and latrine)
3. Bed check
4. Getting up
5. Shaving
6. Showers
7. Laundry count
8. Latrine
9. Washroom
10. Back porch
11. Bed making
12. Janitorial work in unpopulated areas
13. Clothing room

C. Central Hall Area

1. Morning medications (at ward entrance--need "K" with evening medications)
2. Evening medications (at door of Nurse's office)
3. Central hall--general
4. Nurse's office (need "K" with Secretary's office)
5. Secretary's office
6. Luxury room (setting?)
7. Doctor's office
8. Night time (need "K" between night table and nurse's office)
9. Clearing ward (e.g., for meals--need "K" with escorted mass walks)
10. Counting out small groups (need "K" with clearing ward and escorted walks)
11. Checking privilege cards in (setting?)
12. Seizure room (similar to other bedrooms)

II. Off Ward settings

- A. Mass escorted walks (e.g., walks to meals)
- B. Small escorted groups (need "K" with mass escorted groups)
- C. Traffic ways (general)
- D. Dining Room
Major subsettings
 1. Stairway entrance
 2. Serving line
 3. Tables
 4. Leaving (need "K" with mass escorted walks)
- E. Outside detail at cemetery
- F. Bus rides

G. Recreation Building

1. Canteen
2. Post Exchange
3. Library
4. Music room
5. Auditorium activities (Need "K" among variety show, movie, concert)
6. Sports in gym
7. Dance (not observed)
8. Closed ward to canteen
9. Speech crafters club

H. Physical Therapy

I. P. M. & R. Building

1. O. T. shop
2. E. T. shop
3. Wood working shop (Need "K" with lapidary shop)
4. M. A. T. shop
5. Group therapy at O. T. shop

J. Building No. 1

1. Corrective Therapy
2. A. A. meeting
3. Internal Medicine Laboratory
4. X-Ray Department
5. Dental Laboratory
6. Administrative offices (seen but not entered)

K. Chapel

1. Chaplain's hour)
2. Sunday services--Protestant) (Need "K")
3. Sunday services--Catholic)

L. Kitchen

M. Laundry

N. Grove (daily, privilege card patients)

O. Closed ward at grove

P. Disposition board

Q. Other wards in order of frequency of contact (may not properly belong to this listing).

1. Ward 6
2. Ward 4
3. Ward 8
4. Ward 5
5. Ward 3
6. Ward 1

73 = Tentative Total Number of Unit Settings Entered by Ward 7 Residents

APPENDIX D. SAMPLE WORKSHEET

Figures D-1 and D-2 show the two sides respectively of the worksheet used in the later stages of this exploratory study. They are designed primarily for convenience in direct observation rather than for convenience in transcription of quantitative data to punched cards. Detailed explanations of terms used and notations required are described in Chapters I, IV, and V. The following text contains only brief notes more pertinent to the worksheet itself than to the method. Items considered self-explanatory are not mentioned in this text.

Figure D-1.

1. Setting Code. It was anticipated that eventually each setting would have a numerical code designation for use on punched data cards.
2. Setting Name and Specifications. The name is usually whatever name is common for the setting in the parlance of the hospital. The specifications may be some subdivision of the setting used for observational purposes, e.g., Setting: Meals (or Dining Room); Specification: Ward 7 occupancy only.
3. Location. Here are specifications of the exact physical location, e.g., for the setting Ward 7 Dayroom, East, the entry is "East dayroom of ward 7, includes end porch and hallway, excludes latrine and bedrooms."
4. Behavior Objects Used. This includes only those objects which the observer actually sees in use, e.g., a book which is

available for use, but is never used, is not listed. When unusual use of a behavior object is made, the use should be noted, as "Walls used to grind out cigarettes."

5. Space Ratio. It became more usual for reasons explained in Chapter V to simply estimate the ratio, placing a checkmark on the "scale" rather than estimating the group area and milieu area.

6. Major Impressions of Physical Atmosphere. Here, impressionistic adjectives are called for rather than concrete descriptive adjectives, e.g., "restful" rather than "green walls."

7. Population by Penetration Zone and Population Categories.

a. Here the number of people appropriate to each cell is entered in that cell. For example, a group therapy setting may include two people on the professional level, (e.g., a psychiatrist and a social worker), where the psychiatrist is acting as a single leader and the social worker is an invited guest. In this case, both would be indicated in the first column (Prof), the social worker being represented by a "1" in the second row (guest/aud) and the psychiatrist being represented by a "1" in the last row (sing. ldr.). The total number, of course, would be two. At the extreme right would be entered the total numbers of staff members and patients in each penetration zone.

b. Dominant members. Zone 3.5 was included on this worksheet for those people who did not seem to fit well into either zone 3 or zone 4. It remains uncertain whether such a category is necessary or advisable.

c. Population categories. The staff categories appeared to be adequate; however, it is felt that a more meaningful categorization of patients in this hospital would have been by ward of residence in addition to whether or not privileged. The large un-headed space was made for exploratory additions to the population categories.

d. Turnover record. This is the double row at the bottom of the grid. In most settings, not having marked turnover, it was convenient to make "tick-marks" for persons entering and leaving the setting during a period of direct observation.

8. Turnover Type. Here the appropriate term is simply circled. Usually, settings were readily classified in terms of one of these three types of turnover.

9. Modal Interpersonal Distance. The observer makes a rough estimate of the most typical physical distance from each occupant of the setting to his nearest neighbor.

10. Major Impressions of Social Atmosphere. As in notation 6, impressionistic adjectives are called for rather than concrete descriptions.

Figure D-2.

1. Action Pattern Ratings. After some time of observation the observer enters ratings in the appropriate cells according to the definitions and scales presented in Chapter I.

a. Government. In this study, Government refers to action specifically having to do with hospital administration. It does not include, for instance, aides carrying out routine duties such as escorting.

b. Earning a Living. In this study, patients holding regular jobs in the hospital, regardless of whether receiving pay, are classified as earning a living.

c. Waiting, Idle, aimless. These action patterns, being essentially different from the others (see Chapter IV), are not included in totals, and cannot be rated except on the participation subscale.

d. Social Contact. The subcategory "nonverbal" is used only in the event of marked lack of verbal social contact, as we assume that verbal social contact usually involves a considerable amount of nonverbal social contact. The procedure for dividing the total social contact ratings is still unclear as of this writing.

e. Behavior mechanisms Looking and Listening. The two columns at the extreme right are included as an aid in computing the ratings for these two behavior mechanisms. In these columns are indicated the amounts by which each action pattern rating total would be reduced due to blindness or deafness. For example, if the total rating for Aesthetic were "6", and due entirely to looking at pictures, this action pattern rating would be reduced by "6" if everyone were blind. Therefore, the observer enters "6" in the top row of the "look" column.

2. Behavior mechanism ratings. General directions are the same as for action pattern ratings.

a. G M A refers to Gross Motor Activity.

Dates observed: _____
 Times observed: _____
 Observer: _____

setting
code

setting name _____

specifications: _____

1. MILIEU:

A. Location: _____

B. Times setting occurs: _____

C. Behavior Objects Used:

D. $\frac{\text{Group area}}{\text{Milieu area}} = \text{space ratio}$

1 3/4 1/2 1/4 1/60

E. Major impressions of physical atmosphere (adjectives):

2. POPULATION BY PENETRATION ZONE AND POPULATION CATEGORIES:

Zone	PROF	NS	Hide	VOL	cler	PMR	IND	MEMB	PRIV	NON-PRIV	ESTATE	R: Pt.
onlooker												
1												
rest/aud.												
2												
emb/cust												
3												
om. memb.												
3.5												
unct vary												
4												
int ldr.												
5												
ing. ldr.												
6												
Totals:												Total POP: 2
enter												
leave												
											net growth	repeated

B. Turnover type: regular irregular net growth repeated

C. Modal interpersonal distance: _____
 (population density)

D. Major impressions of social atmosphere (adjectives):

Figure D-1

Settings: _____

1-76)

3. ACTION PATTERN RATINGS: (Goals—purposes—meanings)

Subscale ratings

Pattern	partic	supply	eval/appr	teach/learn	total	BEH. MECH. look	listen:
Aesthetic							
Business							
Earn Liv							
Education							
Govt (H.A.C.)							
Nutrition							
Orientation							
Pers App							
Philanthrop							
Phys Heal							
Recreation							
Religion							
Social Contact							
Verbal							
Nonverbal							
Waiting							
Idle, aimless							

Do not include in total

TOTAL AP: _____

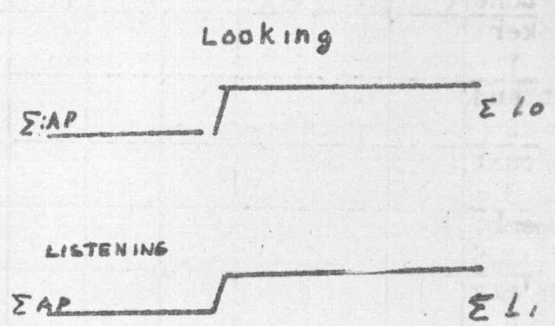
ΣL_0 ΣL_1

4. BEHAVIOR MECHANISM RATINGS: (how action occurs)

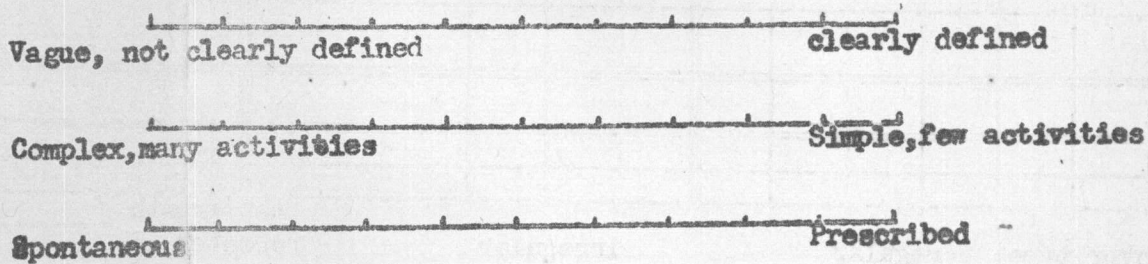
-79

mechanism	partic	tempo	intensity	total
GMA				
Talking				
Manip				
Thinking				
Affect beh				
Wanneristic activity				

look
listen
, Total B.M.



5. COERCION ON STANDING BEHAVIOR PATTERNS:



b. Manneristic Activity was a category invented for the purpose of this study and did not turn out to be easy to rate. It was to refer to repetitive movements, or hallucinatory speech which would be obvious to anyone in the setting, but would be somewhat apart from standing patterns of behavior. Because it is not strictly speaking a part of the standing behavior patterns, it is not included in the total behavior mechanism score.

c. Look; Listen. Here the observer enters the result of the computations to the right of the grid. Due to their nature, the intensity and tempo of Looking and Listening are neither defined nor rated.

3. Coercion on Standing Behavior Patterns. These are the "coercion scales" described in Chapter V. They refer to the standing behavior patterns specifically rather than to "coercive features" of the settings observed. The observer attempts to place one check mark on each "scale;" however, so far rating has subjectively proven to be a difficult process.

Guide Card. In addition to the worksheet, the observer was provided with a "guide card" approximately three inches by five inches, which briefly gives the key to action pattern ratings and behavior mechanism ratings on one side, and brief instructions for a "narrative summary" on the other side. Use of this card and the work sheet assumes the observer's familiarity with more detailed descriptions of the techniques involved.

The front, or rating side, of the card is reproduced below, followed by a reproduction of the back, or narrative summary side, of the card.

ACTION PATTERN RATINGS

Particip. & supply

- 0 - none
- 1 - 1-20% of person hours
- 2 - 21-40%
- 3 - 41-60%
- 4 - 61-80%
- 5 - 81-100%

Evaluat & appr/teach & learn

- 0 - None explicit
- 1 - Less than 1/2 of person-hrs.
- 2 - More than 1/2 of person-hrs.

BEH. MECHANISM RATINGS

participation

- 0 - less than 10% of person-hrs
- 1 - 10-33% of person hours
- 2 - 34-66%
- 3 - 67-90%
- 4 - more than 90%

.....

tempo

- 0 - maximal speed is slow
- 1 - Max. speed in median range
- 2 - Max. speed above med. range
- 3 - top speed, near physiol limit

.....

intensity

same as tempo, in terms of energy expenditure.

NARRATIVE SUMMARY: (separate sheet)

1. Specifically, what is the standing pattern of behavior? For each action pattern rated, state what it consists of.
2. Briefly describe the physical milieu.
3. Less briefly describe the social atmosphere, the requirements, satisfactions and feelings; what is the "flavor" of the setting?
4. Specify major action sequences.
5. List major subsettings.

TABLE OF CONTENTS

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