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PERSONALITY AND TREATMENT: AN EXPERIMENTAL FIELD STUDY OF GERIATRIC MENTAL PATIENTS

by
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PREFACE

The data for this thesis were gathered at Ypsilanti State Hospital, where the University of Michigan Division of Gerontology and the hospital staff have been collaborating in the development of a treatment program for geriatric patients. Many members of the hospital community, both patients and staff, have been very much involved in this study. Their generous support and active cooperation is gratefully acknowledged by the author.

All of the members of the Division of Gerontology staff have been kind and helpful to me beyond the call of duty. The prime mover for this research, as for so many achievements in the field of gerontology, is Wilma Donahue, Chairman of the Division. In particular, her critical comments at a strategic moment helped me to put my work in perspective. I also thank Dorothy Coons, who was indefatigable in her leadership of the experimental program, and offered perceptive comments on Chapter III. It has been my good fortune to spend three years in close association with Leonard E. Gottesman, who directed the research project. He has been both teacher and good friend.

Daniel Katz is everything that a doctoral chairman should be. I am grateful to him for his patience and encouragement, as well as his uncommon theoretical insight. Furthermore, I wish to acknowledge the advice and counsel of Joseph Veroff and Henry J. Meyer. Whatever order exists in the presentation of findings is for the most part due to

Dr. Veroff's comments and suggestions. I am indebted to Dr. Meyer for alerting me to some of the problems of doing and reporting evaluative field research.

The contributions of my friends and teachers notwithstanding, I claim full responsibility for all errors of commission or omission. It is difficult to express my gratitude to my wife for her contribution to this effort. But then she knows, and others could not possibly understand. Special thanks, however, for the constant vigilance with which she prevented the children from interfering with my work.

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INTRODUCTION

In this and the next chapter I will discuss the development of research and practice in milieu therapy--or more accurately, milieu therapies. The plural is more appropriate because we are talking about a wide variety of ideas and institutional arrangements for the treatment of mental patients manifest over a period of two centuries in Europe and America--theories which share a common orientation toward the mentally sick individual and his treatment.

Widespread institutional care of the mentally ill first appears in the nineteenth century, probably as a result of dislocations associated with the Industrial Revolution (Perrow, 1964, p. 15). There is, of course, some evidence that the mentally ill were segregated as early as 2,000 years ago in Egypt and, in the Western World, as early as the fifteenth century in England (Perrow, 1964, p. 14). Until the eighteenth century, however, little more was done other than to segregate the insane from the rest of the population. In some cases attempts were made to exorcise the demons with which they were thought to be possessed.[1] Until that time with few exceptions an insane person was thought to be

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[1] "The late 17th century witnessed a growing revolt, participated in by philosophers and physicians, against the superstitions of witchcraft and demoniacal possession and their cruel effects on the insane. But all this outcry reached a state of real effectiveness only in the following century" (Deutsch, 1949, p. 23).

either possessed by the devil or descended in phylogenetic status to the level of bestiality.[1]

Appointed director of the Bicetre asylum for men and the Salpêtrière asylum for women by the French revolutionary government in Paris (1792), Dr. Philippe Pinel pioneered in the development of a regimen based on kindness and sympathy, without the use of mechanical restraints and physical brutality. For the most part Pinel rejected the medical technology of his day (blood-letting, emetic purges, etc.) and relied mainly on "moral therapy" of which he was one of the first to formulate a coherent ideology.

At the same time, the Quakers of York, England, led by one of their members, William Tuke, were preparing plans for a retreat for the insane which would embody many of the same principles of moral treatment that were put into effect by Pinel in Paris. Of course, both Pinel and Tuke were responding to the horrible conditions which existed in places where the insane were incarcerated, so that at the very least, the idea of moral treatment represented an attempt to deal with the mentally ill in a humane fashion. However, moral treatment aspired to more than humane handling--especially in the case of Pinel, moral treatment was intended to be a psychiatric therapy, i.e., a curative enterprise.

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[1]It should be noted that the Ancient Greeks' treatment of upper-class mental illness rivals that of today: "Soranus of Ephesus (fl. 2d century) adopted many of the beneficial aspects of Asclepiades' theory, and added a number of original contributions which, for humane understanding of mental illness, were barely approached until the time that Pinel struck off the chains from the insane at the Bicetre. Some of his directions could serve even today as the basis of an attendants' manual in the most modern mental hospitals . . ." (Deutsch, 1949, p. 9).

Whether or not it succeeded cannot be evaluated here for lack of data, the point being that these early practitioners were attempting to provide their patients not only with humane custody but with treatment and rehabilitation as well.[1]

Pinel and Tuke, as well as the later American practitioners of moral treatment, were strongly influenced by the liberal philosophy of John Locke: if nothing is in the human mind which is not first an impression received by the senses from without, and brain function consists of associations among sensory images, then brain malfunction, i.e., insanity, must result from some pathology in the individual's sensory experience of the external world. In other words, insanity is not caused by the demonic possession of supernatural forces nor by physiologic brain lesions. Rather, it is induced by situational events,

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[1] "Moral management . . . consists in removing patients from their residence to some proper asylum; and for this purpose a calm retreat in the country is to be preferred: for it is found that continuance at home aggravates the disease, as the improper association of ideas cannot be destroyed. A system of humane vigilance is adopted. Coercion by blows, stripes, and chains . . . is now justly laid aside. The rules most proper to be observed are the following: Convince the lunatics that the power of the physician and keeper is absolute; have humane attendants, who shall act as servants to them; never threaten but execute; offer no indignities to them, as they have a high sense of honour; punish disobedience peremptorily, in the presence of the other maniacs; if unruly, forbid them the company of others, use the strait waistcoat, confine them in a dark and quiet room, order spare diet . . .; tolerate noisy ejaculations; strictly exclude visitors; let their fears and resentments be soothed without unnecessary opposition; adopt a system of regularity; make them rise, take exercise and food at stated times. The diet ought to be light, and easy of digestion, but never too low. When convalescing, allow limited liberty; introduce entertaining books and conversation, exhilarating music, employment of body in agricultural pursuits . . .; admit friends under proper restrictions. It will also be proper to forbid their returning home too soon. By thus acting, the patient will 'minister to himself'" (Beck, 1811, pp. 27-28. Also quoted in Deutsch, 1949, pp. 91-92).

and treatment should be directed toward placing the patient in a setting in which the mind will be renewed and reactivated.

So the first step in moral treatment is to remove the patient from his morbid environment and place him in an institution. The institution should be small (no more than 250 patients), well-staffed, and located about two miles into the countryside in pleasing natural surroundings. Once in the institution the patient should be made as comfortable as possible, and every effort should be made to treat him with dignity and respect, as if he were healthy. The staff establishes a stable routine of activities which are designed to rouse the dormant faculties of the mind, such as recreative exercise, amusements, education (classes were offered in some hospitals), and manual labor. Staff members must tolerate bizarre behavior on the part of patients, except when such behavior is likely to endanger the patient or others near him. If coercive restraint is necessary it must be applied in such a manner as to minimize insult to the patient's sense of dignity and personal worth (Bockoven, 1963).

Aside from looking after the general needs and comfort of his patients, and supervising the organization of the treatment <u>setting</u>, the early American practitioners anticipated psychiatry in yet another way: they did their utmost to engage in a "therapeutic relationship" with their patients as individuals. Towards this end all available information about the patient--biographical background, history of mental illness among relatives, physical condition, interests, and specific needs or preoccupations--was canvassed.

> The greatest requirement of all was that the physician spare no effort in gaining the confidence and good will of his patients and strive to discover their experiences and supply their needs. . . . The physician was strongly reminded that even the most insane patients are sensitive to manifestations of interest and good will. [Bockoven, 1963, p. 17]

Moral treatment of the late eighteenth and early nineteenth centuries had all the earmarks of a bona fide therapy: a theory linking specific morbid conditions and their etiology to a set of operational procedures for curative treatment. Some form of moral treatment was practiced in at least nine private and public hospitals during the first half of the nineteenth century. One of these, Worcester State Hospital in Massachusetts, kept rather complete and accurate records of patient disposition providing us with some empirical basis on which to consider the efficacy of moral treatment.[1] Data gathered from the time the hospital was opened in 1833 until 1893 indicate that out of 8,204 patients admitted, approximately 66 per cent were discharged on first admission as improved or recovered and were never readmitted. Of the patients who relapsed after first discharge and were readmitted, 74 per cent were later discharged as improved or recovered. Only 4 per cent of the total group was ever readmitted more than twice.

In spite of such auspicious beginnings, moral treatment did not endure into the twentieth century. The procedures and ideas that we associate with moral treatment fell into disuse as large custodial institutions for the insane were constructed in state after state. The state hospital movement championed by Dorothea Dix in the late 1800's

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[1] Cf. Bockoven, 1963, Ch. V, "Hospital Statistics and Prognosis of Mental Illness."

and its abuses are described in vivid detail by Albert Deutsch and C. W. Beers, among others (Deutsch, 1949; Beers, 1935).

Driven by an intense desire to see the mentally ill removed from decrepit almshouses and jails in the city, and virtual slavery on farms in the country, she more than anyone can be credited with the widespread acceptance of the proposition that each state has responsibility for the care of its insane residents. But, it is well known that sufficient funds to provide a decent level of state care were not (and with few exceptions, have never been) appropriated by state legislatures. Whether as a result of radical demographic changes and urbanization or as a consequence of changing conceptions of mental illness, the moral treatment ideology was not applied to the organization of large state hospitals and did not affect the treatment of the great majority of the insane, from the 1800's until 1940.[1]

Many of the precepts and practices that were central to moral treatment reappear in the late 1940's to become, by 1960, an integral part of the new mental hygiene. In Chapter I, I intend to review some of the more important theoretical and institutional developments which occurred between 1940 and the present, in order to arrive at a more or less unified description of the method.

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[1]Bockoven (1957) argues that the demise of moral treatment as well as the proliferation of large, custodial institutions in the late nineteenth and early twentieth centuries are, at least in part, attributable to changing conceptions of human nature and mental illness, derived from the Darwinian concept of survival of the fittest.

CHAPTER I

MILIEU THERAPY: DEVELOPMENT AND RESEARCH

The rise of milieu therapy as a treatment ideology coincides with, and is related to: (1) the growth of social psychology; (2) the development of neo-Freudian psychoanalytic theory which places considerable emphasis on the role of environment in personality formation and structure; and (3) the development of organization theory as a subdiscipline of sociology. We are here primarily concerned with ideas about personality and personality disorder, and complementary ideas about the organization of the mental hospital and its effects on the individual inmate. As early as 1931, Harry Stack Sullivan in describing his own work said, ". . . not sick individuals but complex peculiary characterized situations were the subject matter of research and therapy" (quoted in Perrow, 1964, p. 39).

In the 1940's two articles by George Devereux (1944, 1949) appear which elaborate further on the propositions introduced by Sullivan and Rowland: (1) mental illness is transactional; it is a function of the relationship between ego and the social system of which he is a member; and (2) any attempt to treat mental illness must therefore recognize the relevance of all aspects of the patient's environment, not only the relationship between patient and therapist. In other words, if pathology is generated by ego's experience of a morbific social environment, then cure is engendered by the patient's experience

of an hygienic environment. Just what constitutes a therapeutic social setting has been the subject of considerable speculation and debate.

Any attempt to answer that question must begin with a theory about the elements of social organization which are conducive to mental breakdown. Devereux (1939, 1944) hypothesizes a direct relationship between the following eight factors and the appearance of schizophrenia.

1. The number of culture-traits--i.e., the complexity of the social system.
2. The "abstractness" of the social structure.
3. The extent to which norms and/or social controls are consistent and harmonious.
4. "The rate of socio-cultural change."
5. The extent to which the society exhibits cultural lag.
6. The extent to which value systems are irrational and/or dysfunctional.
7. The extent to which the individual's participation in the life of the society is segmented.
8. "Social emphasis on the prolongation of infantile patterns."

In a discussion of an experimental program at Worcester State Hospital, Devereux argues that

> . . . it is obvious that the hospital environment is therapeutically successful, because it emphasizes the exact opposite of those social forces which lead to schizophrenic 'breakdowns.'" [1944, p. 261]

If schizophrenia represents an inability to deal rationally and consistently with a dysharmonious environment, then therapy requires a stable and well-integrated environment. Furthermore, he says, we can be more

specific about the relation between social forces and mental illness:

> If we knew precisely what features of social life are partly responsible for the occurrence of various 'dispositions to psychosis,' and in 'precipitating' various psychoses, we could perhaps manipulate the social life of various wards in such a manner as to increase rates of recovery. [1949, p. 496]

He goes on to propose--albeit tentatively--that the appropriate social therapy for a given pathological condition might be to place the patient in a ward setting which approximates the social structure of a culture in which his particular form of illness does not appear. (Devereux is himself an anthropologist.) As the patient's condition improves he can, conceivably, be exposed to wards which are ever more similar to the social setting in which he will eventually live.

Devereux is quite within the tradition of the early moral therapists inasmuch as he advocates a stable, controlled environment, concrete and simple enough that the psychotic can re-orient himself with a minimum of difficulty. He specifically questions the degree to which a treatment program can be permissive and still provide the necessary stability. A rather different orientation is available in the work of Maxwell Jones and his colleagues at Belmont Hospital, London. We are fortunate in having not only a detailed presentation of the method in Jones' The Therapeutic Community (1953) but a careful analytic study of the results in Rapoport's Community as Doctor (1960).

The Industrial Neurosis Unit at Belmont ". . . is organized as a community in which everyone is expected to make some contribution towards the shared goals of creating a social organization that will have healing properties" (Rapoport, 1960, p. 10). Towards this end, the

staff tries to maximize the following conditions: (1) democratization--equality in decision-making among staff and patients; (2) permissiveness --deviant behavior is tolerated with a minimum of institutional control; (3) communalism--intimate, primary relations are encouraged, everyone is entitled to free access into what might otherwise be within the individual's private domain; and (4) reality-confrontation--patients should continually be presented with "realistic" interpretations of their behavior as it is seen by others.

The "therapeutic community" was an outgrowth of a specific treatment and rehabilitation method for treating World War II veterans who were suffering from a psychosomatic ailment known as "effort syndrome." Unlike most other neurotic or psychotic conditions, much was known about the etiology and physiologic manifestations of the illness, and the developing treatment took full advantage of this knowledge:

> The patients were made up entirely of Service personnel suffering from effort syndrome; this meant that their symptomatology was almost identical. They complained of breathlessness, palpitations, left chest pain, postural giddiness, occasional fainting attacks and fatigue; their symptoms were in the main related to exercise. . . . Extensive physiological researches were carried out. . . . As a result of these inquiries much factual data were accumulated. . . . As the understanding of individual symptoms developed it became clear that effort syndrome was a psychosomatic complaint and whatever might be the individual psychological contributory factors, the peripheral mechanisms were much the same in each case. This being so it seemed reasonable to explain to the patients the physiological mechanisms involved in the production of symptoms. . . . A start was made in discussing at a mechanistic level the meaning of symptoms with the whole group of 100 patients. The 'lecture' approach was soon abandoned and a discussion procedure adopted. [Jones, 1953, p. 3]

The net result in most cases was rehabilitation rather than cure. The symptoms did not disappear but the patients now reacted quite

differently to these symptoms; the disease which once had incapacitated them was now mitigated.

The discussion groups, which began as an attempt to disseminate information, soon took on other functions. Patients introduced other problems connected with their illness and with the routine of ward life. The meetings seemed to have some impact on the social organization of the ward--

> . . . the group atmosphere was felt to change from day to day sometimes apparently in response to known external stresses, while at other times mysteriously unknown forces seemed to be at work. We began to experiment with techniques having a more sociological implication. [Jones, 1953, p. 13]

These "sociological implications" were extended, in group discussions and in other aspects of ward life, during the war years at the Effort Syndrome Unit and later at the Ex-Prisoner-of-War Unit in Dartford. These early experiments culminated in the Industrial Neurosis Unit at Belmont.

Unlike the "moral treatment" theories described above, the Jones experiment is based on the assumption that mental illness develops ontogenetically; i.e., Jones and his colleagues adopt a more or less orthodox Freudian perspective with respect to the source of pathology--early childhood experience. "The staff tend to think metaphorically about this group of patients as comparable in ego development to children age 2 1/2." They are persons

> . . . whose ego development was stunted or warped through unsatisfactory experiences in early relationships . . . (which produce) a personality structure that makes it difficult to perform acceptably in adult roles. [1953, p. 42]

The therapy is, in part, a generalization or "collectivization" of traditional dyadic therapy, with all members of the group

participating in the dual role of client and analyst. The unit attempts to employ a psychoanalytic attitude--not uncovering in therapy, but uncovering in everyday life. Staff as well as patients submit themselves to this self-searching, analytic activity. At the same time, many of the activities which constitute the program are designed to resocialize the patient, to prepare him for life in the larger community. Attempts are made to replicate the central social roles in microcosm, it being assumed that practice at working and playing with others will be therapeutic. (As we will see below, Rapoport is critical of the Unit's failure to distinguish between treatment and rehabilitation.) In summary then, (1) everything which occurs in the institution has treatment (or anti-treatment) potential, (2) all treatment is rehabilitation. The possibility of an "institutional cure" in which the patient becomes so well adjusted to the hospital that he cannot leave, is not explicitly recognized. (3) All patients should get the same treatment.

The ideology of the Unit is perhaps best expressed in the four major themes and their respective rationalizations in terms of treatment:

(1) Democratization--

> Each member of the community should share equally in the exercise of power in decision-making about community affairs--both therapeutic and administrative. . . . The conventional hospital status hierarchy should be 'flattened' to produce a more equalitarian form of participation. [Rapoport, 1960, p. 55]

Patients have to "work out" negative feelings toward authority caused by unsatisfactory relations with parental figures. By removing authority figures the source of the difficulty can be demonstrated as inhering in the patient himself. Democratic

participation helps to improve communication and keep alive relevant social norms outside the hospital. Many patients who are negatively oriented towards authority figures are positively influenced by their peers--democratization supports peer relationships, and permits the development of therapeutic talent among patients who may be valuable participants in giving therapy.

(2) Permissiveness--Members of the Unit must tolerate behavior that might otherwise be considered deviant. For example, "if a patient is very abusive or destructive in the hospital, it is better to discuss it with him than to discipline him" (Rapoport, 1960, p. 58).

This general diminution of bureaucratic institutional restrictions is helpful because it exposes the patient (both the deviant and the conformist) to a variety of unstructured situations. His reactions offer valuable diagnostic material, as well as "freely generated anxiety and tension" which can be turned toward therapeutic goals. In addition, permissiveness gives the patients the opportunity to try out new behavior patterns and "act their disorders out."

(3) Communalism--The Unit attempts to promote tight-knit intimate relations among patients and staff through sharing of facilities and encouraging free and easy communication. Perhaps more interesting, is the fact that the norm of communalism involves free access on the part of all Unit members to the "private domain" of each. In particular, this norm explicitly denies the conventional vow of secrecy usually adopted by persons giving psychotherapy.

Communalism is adopted in the hope that it will foster the kind of primary group environment which many patients missed as children; a kind of emotional hothouse. Under these conditions pent-up emotions need not be suppressed and the patient can realize the benefits of occasional catharsis.

(4) Reality-Confrontation--Patients should be continuously presented with the "looking-glass self"--realistic interpretations of their behavior as it is seen by others. In this manner a re-definition (presumably beneficial) of self may occur, and the patient's tendency to utilize inappropriate defense mechanisms may be counteracted.

The Unit accommodated about 100 patients (both men and women), most of whom were referred by practicing physicians. The largest proportion of these patients were from the lower socio-economic strata and came from a variety of living conditions, although "objective difficulties in ordinary social relations characterize the majority," with their problems often related to work, alcoholism, or criminal activity. Rapoport (1960) distinguishes three general diagnostic types among the patients: neurotic (8 per cent), personality disorder (81 per cent) and psychotic (9 per cent; 2 per cent were not assigned).

The Unit program is organized around a variety of activities and treatment procedures: community meetings to which all personnel attend, ward meetings, psychotherapy, chemotherapy, ECT, and several functionally specific "groups" such as Family Group, Doctor's Group (group therapy conducted by a staff doctor), Leisure Groups, and Departure Group. In addition, every patient is expected to participate in a workshop or

occupational training program, and there are social affairs, excursions, and other activities.

The Unit staff consists of four doctors, a psychiatric social worker, a nursing sister (chief nurse), a clinical psychologist, two disablement resettlement officers (concerned primarily with occupational placement), and an indeterminant number of staff nurses and assistant nurses, or "social therapists."[1] The assistant nurses, called social therapists, are young, attractive girls with little or no training in psychiatric nursing who work directly with the patients in nearly all of the Unit's activities.

Although every attempt is made to convince the patient that his regular participation in Unit activities is desirable, there is considerably less regimentation and bureaucratic coercion than one would expect to find in most state hospitals in this country. Patients are able to move freely without supervision from one part of the hospital to another, and are given frequent weekend passes to leave the institution. An attempt is made to establish interpersonal relations and schedule events so as to replicate, as far as possible in an institutional setting, the life of a "normal, healthy" community on the outside.

In the case of the therapeutic community we have a complex mix of conventional therapies--psychotherapy, group therapy, psychodrama, and chemotherapy--with the distinctive milieu treatment. Needless to say, "there's many a slip twixt the norm and the form," and the Rapoports and Rosow in their book Community As Doctor (1960) offer a

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[1]Neither Rapaport nor Jones report the number of staff and assistant nurses employed.

perceptive analysis of the outcomes. I will attempt a brief summary of their major findings and critical comments.

One prerequisite for the success of the program was that the patient must come to share the Unit's values (members of the Unit staff call this "coming into treatment"). In order to measure the extent to which an individual is committed to Unit values--i.e., in order to distinguish "U" members from "non-U" members--the investigators administered a Values Questionnaire to both staff and patients. This questionnaire consisted of a series of value statements to which respondents were asked to agree or disagree on the usual four-point scale. It was found that (1) there was a marked disparity between the ideological commitment of staff members and new patients; (2) there was no systematic relationship between the patients' initial values (vis-a-vis the Unit) and such demographic factors as age, sex, education, social class or marital status. We will discuss further the relation between initial values, value shifts and therapeutic outcomes below.

The authors report a number of problems connected with the Unit ideology and its implementation. There are problems of limits--if a doctor abdicates all responsibility and authority in favor of "the community" or the group, he may be unable to act at times when individual authority would be therapeutic or simply necessary to maintain social control in the Unit. (Indeed, permissiveness carried to extremes may result in negligence, although that does not seem likely in the present context.) It was found that the treatment goal "permissiveness" is not entirely compatible with the treatment goal "reality-confrontation." The reality with which the patient is confronted may be quite

unrealistic in so far as it deviates from norms and practices characteristic of the larger community. This problem touches on one issue which the authors consider to be critical: the potential for conflict between procedures which are designed to restructure sick personalities, on the one hand, and "practice at living in a normal community," on the other, both of which are assumed to be therapeutic. There is, for example, nothing "realistic" about electro-convulsive therapy even though it may be a most effective treatment for severe depression. Similarly, Rapoport points out the dissimilarity between the relationships which are sought after in psychoanalysis and most dyadic relations in the larger community.

Another problem is that of qualification. Ideological statements as broad as those embodied in the Unit's goals are subject to a wide range of interpretation, associated with a number of different operative policies. This gives rise to two difficulties: (1) there will be conflict between two or more operative policies both of which are meant to implement the same value; and (2) some members are bound to become disillusioned by discrepancies between implementation and their conception of the official goals.

Some of these difficulties could be mitigated if the staff made some attempt to assign different orders of priority to Unit goals and associated operative policies. But, according to Rapoport, this hierarchization of values was never specified, with some degree of confusion and conflict the inevitable result.[1]

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[1]I would add one further comment with respect to Permissiveness and persuasion: persuasion as a substitute for authoritative repression

In fact, in an extensive discussion of social roles in the Unit, the authors report that participants do, indeed, effect a compromise between the "as if" world of the Unit ideology and the exigencies of day to day operation. The ideology, for example, postulates that all members should be able to participate in the analytic process--that there is no monopoly on the skills necessary to interpret and explain someone else's behavior. An important part of some persons' pathology, however, is their inability to register and respond to the needs of others. These people clearly lack the ability to be "doctor" to someone else. Jones and his colleagues soon found that it was not entirely possible to abdicate the roles of doctor or nurse--although it certainly was possible to divest these roles of some of the cultural mythology with which they have been encumbered. The result is a compromise:

> In general, . . . it may be said that the system of roles that is at the core of the Unit's treatment instrument (i.e., its social structure), is an emergent system, not entirely like the 'as if' system of the Unit's ideology, nor like the conventional system prescribed by the National Health Acts.[Rapoport, 1960, p. 130]

The quality and extent of this compromise is not constant over time. The state of the social organization seems to oscillate through cycles of high to low integration of values and behavior. During a peak integration phase, there is considerable consensus about goals, performance is in accordance with these goals, inter- and intra-personal tensions are minimal, decisions are made as a result of group action rather than individual fiat, and "constructive" patients are discharged. These

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can only be effective where there is some shared goal in terms of which the prescribed behavior can be rationalized. If a patient does not share the goals of the therapist no amount of rational argument is likely to have a significant effect on his conformity to system norms.

patients are replaced by neophytes who tend to disrupt the existing equilibrium. Tension mounts as new patients and dissident veterans combine in "non-U" acts, and this tension is diffused throughout the system.[1] In the third phase, dissension and conflict reach a peak, "non-U" ethics predominate among both patients and staff. The latent authority of the staff is utilized, and "pruning" takes place. Without community-wide agreement the most troublesome patients are discharged or transferred to another institution, and patients needing "special treatment" are given individual attention in order to restore equilibrium to the organization. Finally,

> . . . phase D, the reorganizing phase, gains momentum as reparative forces come into play. The discharge of disruptive patients in itself alleviates some interpersonal tension. Some of the remaining patients who identify with those sent to mental hospitals become less resistant to treatment if they see this fate impending for themselves. Others, feeling guilty because they have contributed to the precipitation of disturbances so vividly experienced, feel a strong wish to 'repair' the damage. [Rapoport, 1960, p. 140]

The authors support this "oscillation model" with data on the chronology of "premature" discharge rates, and synchronous data on the rates of patient complaints and interpersonal disturbances.[2]

There is considerable ambivalence on the part of patients newly arrived on the Unit. They are, after all, asked to adopt a set of

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[1] "Non-U" refers to acts or ideas which do not conform to Unit ideology.

[2] The fact that some patients were discharged "prematurely" (those who were "too sick" for the Unit) has some bearing on our evaluation of the efficacy of the therapeutic program. Some of those who were discharged as "not improved" may have had an insufficient exposure to the treatment. The authors do not make it clear whether or not these "premature" discharge patients were included in the analyses of outcome data.

normative etiquettes which is foreign to them, and it is only after a period of socialization that they "come into treatment." It should be noted, however, that there is a fairly strong and statistically significant relationship between initial values and eventual improvement. Sixty-seven per cent of the patients identifying themselves with "U" values were rated by physicians as "improved," while 68 per cent of the patients holding "non-U" values were rated "not improved."[1]

There was very little relationship between improvement and demographic, or background, variables. There was, however, a clear, statistically significant relationship between "ego strength" and improvement. "Ego strength" was measured by securing ratings from two independent judges, a social scientist and the ward nurse. Their agreement was "over 90 per cent," but the authors do not report how the reliability coefficient was arrived at; nor do they report how the two judgments were combined to form a single measure, or what disposition was made in the cases for which they did not agree. The ratings were based on three criteria: (1) the extent to which the patient distorts reality, (2) the extent to which he can control impulses, and (3) his stability of role performance. It was assumed that the sixteen psychotic patients in the study sample were weakest in ego strength, while the thirteen neurotic patients were assumed to have the greatest ego strength. The 136

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[1] Improvement was measured by taking the physician's judgment of a patient's progress, except that one physician consistently under-rated his patients (when his ratings were compared with those of the other three doctors and the social therapist who worked with the same patients). This doctor's ratings were not utilized for the measurement of "improvement," the ratings of the social therapist were substituted for them.

patients who were diagnosed "personality disorder" were then separated into two groups on the basis of the ego strength ratings, those who scored low in ego strength (PD Weak) and those who scored high in ego strength (PD Strong). Thus there were four categories of patients assumed to range from low to high ego strength. It is quite clear from the data reported by Rapoport that there is a well-defined relationship between this measure and the improvement ratings.[1]

There was no relationship between initial value position and value-shifting, but a significant number of patients did show value changes: 45 per cent of the study sample changed their attitudes in a "pro-U" direction, 46 per cent shifted in an "anti-U" direction. Of those whose attitude shifts were pro-U, 60 per cent were rated as improved. Whereas for those whose attitude shifts were anti-U, only 28 per cent (or should I say "as much as" 28 per cent) were rated as improved. Of course,

> . . . the verbal acceptance of Unit ideology and obeisance to it in behavior would almost certainly increase the chances of a patient's being judged 'improved.' The pro-U shifters tend to harbor some 'chameleons.' . . . [Rapoport, 1960, p. 194]

Although both ego-strength and "agreement with Unit ideology" were related to improvement in the Unit, the authors report that "the most important single determinant of improvement . . . is <u>duration of</u>

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[1]There are some technical problems involved in the measurement of ego strength. The 90 per cent agreement between social scientist and charge nurse may be somewhat spurious, in as much as the nurse contributes a major portion of the medical record that the social scientist used to make his ratings. Furthermore, two of the ego strength groups were not assigned on the basis of ratings, but rather in terms of diagnosis. It may be that the operations utilized come closer to a measure of "severity of illness" which also shows a direct relationship to improvement.

treatment." The Staff attempted to keep the patient's stay in the Unit relatively short. The maximum permitted stay was one year, and most patients were discharged after three to four months. In spite of this policy, however, those patients who remained on the Unit the longest were those the greatest proportion of whom were rated as improved. It is difficult to tell whether this is a function of increased exposure to treatment, or a consequence of self-selection--those patients who have a rewarding experience of the Unit may seek to stay the maximum period. They may also be those who need treatment the least. The authors argue that this issue may be immaterial, for ". . . even if self-selective factors are operative, those patients are apparently receiving treatment who can best benefit from it" (Rapoport, 1960, p. 195). Note, however, that there is an inverse relationship between "severity of disorder" and improvement (not statistically significant). If those patients who are least severely incapacitated are also the ones who remain in the Unit the longest time, then one cannot with any confidence attribute their "improvement" to the treatment method. From the point of view of the integration of the therapeutic community, one can assume that there are strong pressures generated to retain in the Unit those whose contributions to its stability and maintenance are greatest.

The Unit ideology stressed the avoidance of one-to-one transference relations between patients and staff (especially doctors). As a matter of fact, a high proportion of the improved patients seemed to maintain just such transference relations with senior staff persons. Rapoport concludes that "unit ideology tries to submerge status

differentials as anti-therapeutic, while the patients cling to them," and it cannot be said that the results are anti-therapeutic. On the other hand, it may be that these dyadic relations are possible precisely because the Unit denigrates the traditional authoritative role of the senior physician.[1]

There was a striking relationship between sociometric rank and improvement. About 25 per cent of those who were not chosen (as a friend) were rated as improved, while approximately 85 per cent of those who were chosen were rated Improved. Taking into consideration the data on friendship choices and reciprocation of friendship, it seems likely that inclusive friendship patterns were established which served to integrate some members but isolate others from the therapeutic process.

The authors present some very interesting data on the fate of seventy patients who were followed at intervals of six months and one year after discharge from the Unit. They were visited at these times by a research worker who made a judgment about the patient's condition, relative to his condition prior to treatment. This, of course, yields three data points for comparative analysis of change over time: (1) immediately upon discharge, (2) six months after discharge, and (3) one year after discharge. At each point the patient is judged to be "improved," "the same" or "worse"--relative to his pre-treatment condition.[2]

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[1]The measure of "transference" was the patient's judgment about "the person in the Unit who was most helpful"--senior staff, junior staff, other patient, no one.

[2]As the authors point out, these follow-up data are questionable from the standpoint of reliability, in as much as the observations are

In looking at the data for the three time periods one finds significantly different patterns. In Table 1, notice the differences in per cent improved. Given the limitations of the data, the evidence

TABLE 1

GROUP SUMMARY OF CONDITION AT DISCHARGE, SIX MONTHS AND ONE YEAR AFTER TREATMENT, BY PERCENTAGE[a]

Condition	Observed		
	At Discharge	After 6 Months	After One Year
Improved	61	31	41
Same	29	46	28
Worse	10	23	31
	100	100	100
N =	70	70	64

$x^2 = 18.7354$, 4 d.f., $p < .001$

[a]Based on Rapoport, 1960, Table 31, p. 208.

does seem to suggest that a large proportion of the improved patients suffer a relapse after discharge from the protected environment of the Unit. An interesting question is whether the relapse is temporary--Table 1 indicates that some of these patients recoup their losses. However, the rise in percentage improved from six months to one year has to be examined carefully. Six cases were lost between the two

made by different judges. Condition at discharge is rated by the patient's physician while the follow-up ratings were done by a research social worker or psychologist. Every attempt was made to utilize the same criteria for judgment at each observation point, but we have no way of evaluating the success of the attempt.

observation points (there is no information about the fate of these six cases in the report); in view of the small total N, these six cases could make considerable difference to our evaluation of outcomes. The six month "improved" group consisted of 31 per cent of the sample. The one year "improved" group could be as low as 37 per cent or as high as 44 per cent, or somewhere in between, depending on the disposition of those six missing cases. We are justified in questioning, on the basis of these data, whether the treatment program has any lasting ameliorative effect for more than 30 to 40 per cent of the patient population.

The investigators also examined the relationship between post-treatment condition and ego strength. It was found that there was a direct, statistically significant relationship between ego strength and improvement at both the six month and one year follow-up points. Significant relationships were not demonstrated, however, between post-treatment status and the frequency and type of "acting out" in the Unit, characteristic modes of behavioral defense, marital status, severity of illness, value shifts during treatment, friendship, or length of treatment.

The moral which the authors draw (correctly, I believe) from these findings is that insufficient attention was paid by the staff of the Unit to the distinctive, and often conflicting, problems of treatment and rehabilitation. Relatively little energy was devoted to preparing the patient for separation from the Unit, and still less attention given to after-care.

> The Unit staff, while overtly stressing their subscription to rehabilitation goals and the attempt to make the hospital more like an ordinary community outside, have in fact developed a specialized

> therapeutic program geared to their ideas of the treatment requirements of patients with socially disruptive personality orders. Their notion that treatment and rehabilitation are being simultaneously and conjointly pursued blurs the actual continuities and discontinuities between treatment programme and compelling rehabilitation needs. [Rapoport, 1960, p. 223]

Thus, the hospital has two tasks: to treat the patient, and to rehabilitate him to the community. The distinction can, perhaps, be most clearly stated in terms of its analog in physical medicine: a sick patient is treated in the hospital to remedy a pathological condition. In the event that the treatment is not entirely effective the hospital and the patient are faced with a problem in rehabilitation, for the patient must learn to get along outside the hospital within the limits set by his incapacity. Even if the treatment is "one-hundred per cent effective" the goal of rehabilitation is relevant, since the fact that he has been isolated from the community during his treatment suggests some degree of difficulty in readjusting to it upon release from the institution. The problem of rehabilitation then is two-fold: (1) the patient must be trained to live with some degree of residual incapacity, and (2) he must be re-socialized from one social system back to another. In the case of the mental patient, the second aspect of the rehabilitation problem is nearly always a serious matter even in those instances when the first is not.[1]

From the point of view of research it might be more convenient were mental illness like a physical disease whose course is inexorable,

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[1] If mental illness is <u>defined</u> as a failure in adjustment to the community, then of course the distinction between treatment and rehabilitation breaks down. This issue of the locus of pathology is discussed in Chapter II.

save for the intervention of some specific therapy. Fortunately for many of the mentally ill (unfortunately for evaluative research), a proportion of patients variously estimated at from 30 to 70 per cent, get well by themselves--what psychiatrists call "spontaneous remission." This means that we are unfamiliar with the dynamics of these pathologies, and in our ignorance are unable to estimate the impact of any particular treatment technology in the absence of a comparable group of untreated, or differentially treated controls. In the case of the Neurosis Unit at Belmont, we cannot really evaluate the impact of the therapy without data on persons with comparable conditions who were not hospitalized, or hospitalized in more traditional custodial settings.

Increased Emphasis on the Treatment Environment

Stanton and Schwartz were among the first to apply the sociology of large-scale organization to the analysis of mental hospitals. The study was conducted at Chestnut Lodge Sanitarium, a small private institution. Morris S. Schwartz is a sociologist, and Alfred H. Stanton a psychiatrist on the staff of the hospital. They were assisted by three secretaries, a statistical clerk and another sociologist in an intensive study of the hospital, focussing on a disturbed ward for fifteen female patients. These were women ". . . who had changed least (in response to treatment), and who were the most confused, noisy, or threatening . . ." (1954, p. 33). The ward was staffed with the usual complement of four or five nurses and aides during the day, and one or two at night. Data were collected over a two-year period in the form of carefully kept notes describing significant events and behavioral

patterns. Hospital records were also abstracted and utilized in the analysis of social structure.

Essentially, the authors' general hypothesis was that various features of hospital organization either impede or facilitate the therapeutic process, that "at least some aspects of the disturbances of the patients are a part of the functioning of the institution" (1954, p. 12). The Mental Hospital (1954) is an exhaustive, and perceptive, analysis of Chestnut Lodge and it would not be possible to do justice here to the wealth of information and insight which the book provides. However, it will be useful for my purposes to review some of its major generalizations. (In the next chapter I will discuss their implications for a theory of milieu therapy.) I will present these as a series of axioms, assumptions and propositions, and examples taken from their data.[1]

1. General:

   Axiom: There is a direct causal relation between social organization and personal organization.

   Assumption: The mental patient has failed at interpersonal relations ("He can't get along with his fellows"). This failure is manifested in anxiety and other bizarre forms of behavior (symptoms).

   Axiom: The mental hospital is a social system--a system in dynamic equilibrium.

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[1]They are not presented in this form in the book but I have taken liberties with their material for the sake of clarity of presentation and discussion.

Assumption: The organization has needs, its constituent members have needs. One of the problems of the organization is to satisfy both simultaneously.

Axiom: As a social system, the mental hospital can be described in terms of its formal organization (planned, institutionalized elements), and in terms of its informal organization (patterns of behavior which are not self-consciously structured, but which evolve over time as "routines" for solving organizational problems). Both aspects are relevant to organizational functioning and the therapeutic process.

2. Formal organization

Assumption: The mental hospital has purposes: protection of the community, general care of the patient, education, research, training.

Proposition: Sometimes these purposes cannot be achieved without conflict; as, for example, when the goal of profit conflicts with the goal of patient care.

With the post-war inflation the institution ran into budgetary problems, and it was deemed necessary for financial reasons to discharge seventeen patients who could not pay their way. This pressure caused considerable anxiety and aroused hostility among staff members, especially those who were directly responsible for treating those patients.

Similarly, there was pressure from the business manager to keep all available beds occupied. This conflicted with the felt

need on the ward to keep beds available for seclusion when it was necessary.

Assumption: The mental hospital as a social system also needs certain resources in order to function: patients, trained personnel, money, and materials.

Proposition: Shortage of any resource will affect goal achievement, but the severity of this effect will vary with the general level of equilibrium that is characteristic of the hospital at any given point in time.

For example, a shortage of nurses and aides created neglect of patients and fear among the staff that they would not be able to cope with patients' aggression. But this problem was only severe when the general level of tension and aggression on the ward was high.

Assumption: Shortage of resources and goal conflict lead to high levels of tension in the organization, which must be dealt with by top administrators.

Proposition: There will be a direct relationship between level of organizational tension and requests for loyalty to the institution and its therapeutic task. (In an organization the ideology of which places a high value on democratic procedure, "loyalty" is one way of rationalizing demands for discipline and obedience.)

2.1. Social roles

Axiom: One way of describing the organization is in terms of its constituent social roles.

Implicit Assumption: Personality is (is affected by) the incorporation of institutionalized role expectations; i.e., the internalization of role-related attitudes.

Proposition: If two roles which are adjacent to one another in the person's life-space make contradictory demands on the person, or if the expectations associated with a specialized role conflict with general cultural norms, the person will suffer dysfunctional consequences (such as anxiety, confusion, and other "symptoms").

Thus, for example, during his psychotherapeutic hour the patient is expected to express freely whatever hostile feelings he may have toward the therapist. There are more restricted limits, however, to the degree to which it is appropriate for him to express hostility toward other members of the staff.

Similarly, most patients have considerable difficulty learning the etiquettes of intensive psychotherapy, which are so foreign to the general doctor-patient relationship as it exists in the larger society.

Proposition: If a patient's role is not clearly defined psychiatric symptoms will be created or exacerbated.

Here Stanton and Schwartz make the very interesting point that the patient is expected to adjust to the hospital and to the role of patient, but he runs the risk of being labelled a "chronic patient" if he adjusts too well. "Thus he is expected to 'pass through' the role without actually learning it; for the purpose of learning the role is to unlearn it or surrender it as quickly as possible" (1954, p. 145).

Proposition: If the arena in which a particular role is to be enacted is not limited there will be dysfunctional consequences for instrumental behavior and organizational efficiency.

At Chestnut Lodge there was a tendency for members of the organization (staff as well as patients) to generalize the attitudes and goals of the therapeutic hour to the other 23 hours. This, say the authors, generates a virtually pathological preoccupation with "self-improvement" and self-searching which lessens the impact of the therapeutic hour and interferes with the business of living; as when two analysts, engaged in a controversy over patient treatment, each accuse the other of "defending."

Implicit Assumption: Although the main focus of the work is the effect of the social system on its members, it is important to consider the impact of person on system.

For example, staff members and other patients tend to avoid withdrawn patients. This reciprocity had dysfunctional consequences for the withdrawn patients because it denied them the benefit of interaction with staff, as well as access to informal patient subgroups.

2.2 Communication

Axiom: Communication (in the Meadian sense) is central to role learning and role enactment.

Assumption: If the organization is to be efficiently run, communication must be "free-flowing and clear."

Assumption: When communication is most effective it leads to

consensus, a "meeting of minds," agreement between individuals about salient issues.

Proposition: Consensus, when achieved, is rewarding for all parties to the transaction. "A consensus is the result of the most successful communication; it is demonstrably useful and, if noticed at all by the participants, is felt as satisfying. There is both delight and security when a consensus is achieved and reaches consciousness" (1954, p. 195).

Assumption: Consensus, however, need not be based on fact; i.e., it might be erroneous.

Proposition: Because achieved consensus is rewarding, there will sometimes be a strain towards consensus at the expense of critical ability (thinking), with dysfunctional consequences for the integration of the system, and the attainment of therapeutic goals.

Thus we are presented with a paradox: Consensus is rewarding and necessary to the solidarity of the system, but the desire to develop and/or maintain consensus can interfere with the distribution of information. For example, if, in the interest of consensus, information is omitted from formal nursing reports (either to superiors in the control hierarchy, or horizontally as between nursing shifts) a false reputation can be promulgated about a particular patient, resulting in the exacerbation of his psychiatric symptoms.

Assumption: Schizophrenia can be understood as a "failure at consensual validation," and paranoia as "false consensus."

Proposition: When the situation, for any reason, blocks or hinders communication, mental illness can be "caused" or exacerbated.

As, for example, when a patient made a realistic request of a therapist which was taken as a manifestation of morbid symptomatology. Because he did not know about the events which led up to her request (having to do with her making out a will) he responded as if her request were inappropriate, whereupon the patient became confused and anxious.

In the case of paranoid patients it is often convenient for staff members to indulge the patient's paranoia by supporting or agreeing to bizarre ideology. This creates a "false consensus" which facilitates the management of the patient but does nothing to alter his pathological relationship to the world.

Implicit Assumption: There are values, or normative etiquettes which apply to the distribution of information.

Proposition: Such etiquettes about who is entitled to what information may be dysfunctional for the operation of the system, and for therapy.

As, for example, when professional ethics about the sanctity of the analytic couch conflict with the need of ward administrators for information about the patient.

2.3. Power, authority and decision-making

Assumption: Delegation of authority for making decisions to staff members and patients is necessary to the effective functioning of the organization.

Proposition: Each person's authority must be clearly delimited; failure to do so (indefinite delegation) will cause confusion and conflict.

For example, without clearcut distribution of responsibility staff members will have difficulty in deciding just when to intervene in the management and treatment of patients.

Furthermore, indefinite delegation can create problems for the patient who is likely to interpret "permissiveness" as lack of concern and interest on the part of staff members.

Assumption: Decision by consensus motivates personnel toward tasks (because consensus is rewarding).

Proposition: Even when the process of gaining consensus interferes with efficiency and arbitrary decisions are necessary (as in a crisis), it is important to achieve some degree of consensus after the fact. I.e., decision by fiat is usually harmful because it robs the administrative psychiatrist of a valuable therapeutic tool (consensus) in coming to an understanding with his patient.

Axiom: Delegation of authority is not the same as abdication of authority (indulgence); abdication means that some important decisions are simply not made (they happen).

Proposition: Abdication of decision-making authority (once delegated) had dysfunctional consequences for organization as well as patient.

Abdication of responsibility for decisions (indulgence) usually has to be corrected, as small inequities accumulate. For the patient this can be disturbing as he experiences "a gradual

but progressive indulgence . . . , followed by sharp restriction; . . . interpreted as promises made and broken. Outbursts of quite impulsive and often dissociated violence on the part of schizophrenic patients in such situations were frequent" (1954, p. 276).

3. Informal organization

Assumption: The "needs of the organization" and the "needs of the individual members" will not always be consonant with each other.

Proposition: Conflict between the needs of organization and the needs and demands of particular members will give rise to ideological dissension among staff members as they seek to maximize therapeutic goals while maintaining a viable organization.

The problem of reconciling system maintenance needs with the idiosyncratic needs of individual patients comes up again and again in the Stanton and Schwartz work. It is expressed in two stereotyped "arguments" presented in the context of "the problem of the special case" (1954, p. 308ff).

Argument I:

> Those opposed to special treatment frequently disapproved without giving any justification for their belief, regarding it as bad by definition. When pressed, however, they would usually say: 'If you treat one person differently, it will arouse jealousy and competition among others and a lot of trouble. What we need and what the patients need is a consistent policy. If we can't do something for everyone we should do it for no one. Special treatment is bad for the patient because she will not experience such treatment when she leaves the hospital and we are trying to prepare her for living outside. It prevents the patient from being a part of the group. If we give her on a silver platter things she will have to work for outside, then she will never want to leave the hospital. We are treating her like a child and

it is insulting to her. The patient is manipulating the staff and using them for some other purpose.' [1954, p. 309]

Argument II:

Advocates of special treatment, however, answered by such statements as the following: 'I am trying to give each patient what she needs. Each patient is different and should be treated differently. Individualization is absolutely necessary. Rules and regulations are inhuman and heartless and those who follow them are legalistic, obsessional, autocratic, and authoritarian. There is nothing unprofessional about indulging a patient's wishes. On the contrary, the personnel should not reproduce the restrictive family setting in which the patient became sick. The belief that one patient should be handled "like all others" could be held only by people who do not know the individual; more than anything else the patient needs some closeness.' They would often express doubt that the patient could get well if such rules were to be 'rigidly' enforced. After all, everybody breaks rules everywhere.' [1954, pp. 9-10]

Assumption: The mentally ill patient needs a well-ordered, stable environment.

Proposition: Firm application of reasonable rules can help the disturbed patient by ordering his world, by confronting him with a supportive but coherent and consistent "reality."

Assumption: Rules rigidly enforced are not ipso facto good simply because they "represent reality." The mental patient also needs nurturant affective relations which can only be established on an individual basis according to idiosyncratic requirements.

Proposition: Special care for some patients will improve their chances for therapeutic change; it will also give rise to conflict and tension among participants.

In point of fact, demand for special care is not controversial under all conditions, and when it is controversial all patients are not equally involved.

It is most likely to occur when:

(1) A patient asks for something special, i.e., when the patient takes the initiative rather than a member of the staff.

(2) When the patient receives something which is in short supply.

(3) When special treatment leads to added work for staff members.

(4) When an exception is made to formally stated hospital rules (thus giving the opposition a "case").

(5) When the ward is at least partially disorganized.

> Certain groups of patients rarely take part in the public controversy: the mute and withdrawn schizophrenic; the classically paranoid; the elderly; the physically ill; the relatively young, tense pre-schizophrenic patient; and depressed patients. Of these, there is subjective evidence of the importance of special treatment among the withdrawn patients and the pre-schizophrenic patients. (There was no controversy when they received such treatment.) On the other hand, the participant paranoid patients and patients with a borderline disorder showing manic-depressive, neurotic, paranoid, and schizophrenic aspects at one time or another were regularly involved in the controversy, and the outcome affected their clinical state conspicuously and regularly. [1954, pp. 331-332]

The authors point out that most often special treatment, when granted, resulted in improved behavior on the part of the patient who received it. But, they argue, a coherent social environment is necessary for elementary ego-integrity. Otherwise special treatment has no special meaning and leads to organizational as well as psychic anarchy.

Assumption: The most covert, well-camouflaged disjunctures in the social organization of the hospital can have direct and manifest consequences for the psychiatric status of its patients.

Proposition: There is a direct relationship between hidden staff disagreement and pathological excitement among patients who are

the subject of that disagreement. "Dissociation is a reflection of, and a mode of participation in, a social field which itself is seriously split" (1954, p. 363).

Proposition: It follows therefore that, in such cases, psychotic behavior can be altered by bringing the disagreement into the open.

> The most striking finding was that pathologically excited patients were quite regularly the subjects of secret, affectively important staff disagreement; and equally regularly their excitement terminated, usually abruptly when the staff members were brought to discuss seriously their points of disagreement with each other.[1] [1954, p. 345]

Proposition: Other manifestations of illness also occur as "parts of definite social configurations."

For example, incontinence can be interpreted as a function of situationally generated anxiety. A purposeful, directed act in response to such conditions as conflict, abandonment, isolation, devaluation, "unconstructive" situations (this does not mean that every time one of these conditions is present incontinence will occur).

Incontinence, however, was also observed to be one possible result of a pleasant, rewarding experience--after which the patient "makes a gift" to the staff.

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[1] The argument presented here is that "an environment can cause a symptom"; i.e., that disagreement (especially covert disagreement) causes manic excitement and/or dissociation. In point of fact, however, Stanton and Schwartz do not provide very satisfactory evidence that the disagreement preceded the symptomatic behavior in time. In other words, it may very well have been the symptom itself which precipitated the disagreement, which may then simply exacerbate the pathological behavior. That such behavior was arrested when the disagreement was brought out into the open may therefore reflect nothing more than the fact that something was finally done to relieve the patient's distress. See Stanton and Schwartz, 1954, pp. 342ff.

About five years after the appearance of The Mental Hospital, William Caudill, an anthropologist, published the results of a similar study conducted at the Yale Psychiatric Institute, The Psychiatric Hospital As a Small Society (1958). Here, too, a systematic attempt is made to apply sociological concepts to an understanding of hospital functioning and the consequences for patient behavior and condition. The first axiom (and last conclusion) expressed in both analyses is that the mental hospital is a social system, and therefore susceptible to organizational inquiry, in terms of such concepts as formal and informal structures, goals and functions, communication patterns and power relations. Their major contribution lies in the observation that there is a direct relationship between the social organization of the hospital and ward, and the psychiatric status of the patient (quite apart from whatever attempts are being made at "treating" the patient's illness with drugs, psychoanalysis, ECT, group therapy, and so on).[1]

Caudill divided his time at the hospital between detailed note-taking and participant observation, focussing on a men's locked ward, open wards, staff conferences, clinical case conferences, and staff interaction. He also analyzed daily progress notes (which were dictated by residents about their psychotherapeutic hours with patients), daily nursing notes, and formal interviews in which he administered TAT-type pictures concerning hospital life.

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[1]Cynics might argue that this point was made as early as 1840 by Ciaruga and Pinel. Classical scholars would point out that the Ancient Greeks jumped the gun by several thousand years.

In discussing the doctor-patient relationship, Caudill presents data to illustrate ways in which this relationship, and the therapeutic progress of the patient, are related to "factors arising in other areas of hospital life" (1958, p. 67). For example, the doctor was under pressure from clinical supervisors to demonstrate his competence as a therapist, and from nursing personnel to control the deviant behavior of the patient. These pressures had a direct effect on the "emotional meaning" of the patient for the doctor, and thus inhibited the therapeutic relationship. Subsequent to the degeneration of the doctor-patient relationship, the patient was placed in the role of "ward clown" by other patients and ward staff members, thus further closing possible avenues of therapeutic intervention.

In another instance, lack of information and a generally high level of tension in the hospital led senior staff members to become over-involved with the psychodynamics of what was really a straightforward administrative problem. In the course of settling this issue (the patients' request for a change in bedtime hours and TV privileges) the patients were led to believe that they were contributing to a decision which had, in fact, already been made in staff conference. This seeming duplicity was resented by the patients involved, and contributed to a collective disturbance which was occurring at about the same time.

The collective disturbance is described in considerable detail with the object of demonstrating that such phenomena can be understood only by examining the behavior of the total system rather than focussing on the behavior of patients. In this case, there was a heightened level of tension which pervaded the institution and was associated with

serious breakdowns in communication between certain role groups, and unusual alliances among them (senior physicians and nurses vs. residents and patients). The process through which equilibrium was disturbed and later restored is described in four phases: (1) mutual withdrawal of role groups, (2) open collective disturbance, (3) the formation of paired role-group relations (alliances, described above), and (4) restitution of equilibrium. It is not clear from Caudill's discussion just what events led to the original alteration in organizational equilibrium; nor is it clear what enduring changes in structure were accomplished after restitution. The author does feel, however, that the outcome is not necessarily dysfunctional:

> The process referred to here as a collective disturbance is not necessarily bad, and, in fact, much good can come of it. A hospital (or any other organization for work) which did not have some rhythm in its activities would not be a good hospital, it would be a dead one. The opposite is also true--the ups and downs in everyday life can reach too great proportions for adequate functioning. In between a state of extreme oscillation and one of dead calm there is much to be learned from such processes and many ways in which they can be put to use for truly therapeutic ends. [1958, p. 125]

Carrying his inquiry further, Caudill makes use of the Thematic Apperception technique to study attitudes of participants toward the hospital in general, toward hospital administration, and toward human relations in the hospital. He finds that,

> . . . taken singly, role group by role group, there was more optimism than pessimism about the hospital. Distressingly enough, however, where there was optimism in one role group which was a party to an interaction, there was pessimism in the other. . . . The operation of the hospital as a system was continually shaken by the effects of differences of opinion which were often hidden and difficult to trace back to their sources. A lack of complement between roles in a social system . . . leads to disequilibrium and faulty functioning. The rhythm of day-to-day work is disturbed; the necessary variations in every day events are likely to turn

> into crises; and since good communication is disturbed, there is less chance that the system will regulate itself smoothly. . . . [1958, pp. 226-227]

The main conclusion of Caudill's work is

> . . . that a psychiatric hospital is indeed a social system, and that the properties of such a system constitute a set of significant variables which affect the quality of behavior in all areas of hospital life. [1958, p. 318]

There are, of course, more specific hypotheses associated with this general conclusion. The author speculates on the existence of "'ground swell' affecting psychotherapy in a hospital so that a majority of patients might be doing well or poorly at a particular time" (1958, p. 318). He points out that his data about collective disturbances support the Stanton and Schwartz hypothesis that covert disagreement among staff members leads to pathological excitement in patients.

Whether or not Stanton and Schwartz and Caudill have made important contributions to a theory of pathology and treatment for mental illness is an open question, one which I will discuss in the next chapter. At the very least, however, the social scientist is in a position to explore ways in which many institutional arrangements exacerbate the pathology of mental patients. To paraphrase Florence Nightingale, if it does nothing else, a hospital should not make its patients sicker. To a great extent it is to this problem that milieu therapy is oriented. This is reflected in the title of Greenblatt, York and Brown's collection of studies: <u>From Custodial to Therapeutic Care in Mental Hospitals</u> (1955). It could have been titled "From Custody to Therapy . . . ," had not the authors exercised appropriate restraint.

These experiments were conducted in three rather different Massachusetts hospitals, Boston Psychopathic (affiliated with Harvard University), Bedford VA Hospital, and Metropolitan State Hospital. The authors' primary concern is with the chronic patient--one who has been an inmate for a number of years and has no immediate prospect of being discharged.

> When social scientists began to examine the average large mental hospital, they almost immediately questioned why the chronic psychiatric patient who is supposedly free from gross brain damage remains ill. Is it because of incurable inner conflict, or because of the restrictive procedures, inadequacy of communication, and general emotional impoverishment of the institution? As persons trained to look at environmental factors, their attention was focused upon the second possible alternative. [Greenblatt, 1955, p. 19]

At Boston Psychopathic the treatment program consisted of the following changes in procedure. (1) the basic evils were eliminated--seclusion, continuous baths, wet sheet packs, chemical sedation, and forced feeding. (2) The physical environment was made more attractive. (3) Where somatic treatments such as electro-shock and insulin shock were used, an attempt was made to reduce the fear and apprehension with which a patient usually approached these experiences. (4) Activities and resources were provided as a meaningful alternative to institutional stupor. Books, magazines, newspapers, music, games, mixing sexes at dances and parties, occupational therapy and other forms of recreation were introduced. (5) A patient government council was established to give the patients some voice in institutional decision-making. (6) Attempts were made to develop the therapeutic potential of all staff members. Nurses and attendants were given training in conducting group therapy and psychodrama. Nursing affiliates (nursing students attached

to the hospital for didactic training) were utilized as supplementary therapeutic personnel, and staff conferences were held frequently to facilitate coordination of all these functions. (7) Patient's relatives were urged to spend more time at the hospital visiting their kin and attending group meetings. Volunteers from the community were also brought into the hospital on a regular basis.

The response was impressive, the authors report. Enthusiasm for the program was evidenced by relatives and friends of the patients, as well as by patients and staff members. Furthermore, there was a marked decrease in symptoms usually associated with catatonia. "If the condition is a social reaction to the environment, as we now consider likely, the changed attitude of the ward staffs may have been of the utmost importance" (Greenblatt, 1955, p. 238). Also important, I should imagine, is the fact that opportunities for activity and involvement were provided where they had not existed before; i.e., that a ward environment which is devoid of stimulation will provoke no response (catatonic noninvolvement).

In a five-year follow-up study of 100 Boston Psychopathic patients, Bockoven and Solomon (1954) report that seventy patients were discharged to the community, 29 were transferred to other hospitals for "continued care," and one died. The average hospital stay for these patients was 75 days. At the end of five years, of 88 patients still living in Massachusetts, twelve (14 per cent) were in the hospital (having never been discharged, or having been discharged and readmitted), and 76 (86 per cent) were in the community.[1]

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[1]There was some evidence that women did better in the community

Greenblatt also presents some data on the social adjustment of 106 patients in the community three years after commitment. (It is not clear whether or not the 100 patients described above are included in this group of 106). The patient and his family were interviewed to determine the extent to which they were satisfied with his adjustment in three areas: occupational adjustment, family life, and community activities. In general it was found that both the patient and his family felt that occupational adjustment was "satisfactory." Eighty per cent of the patients were working, 74 per cent were economically self-sustaining or nearly so. But family adjustment was in many cases rated as "barely adequate," and community adjustment "almost unsatisfactory." As was the case with Rapoport's analysis of the Neurosis Unit program, the authors suggest that these findings may be related to a failure of the institution to supply sufficient post-discharge support to the patient.

At Bedford VA Hospital similar changes were introduced. Here an attempt was made to establish control wards which would maintain a custodial routine, but the investigators were unable to prevent a "spread of effect" throughout the hospital. As new activities were introduced on an experimental ward, interested staff members of control wards would follow suit on their own initiative.

Data to evaluate the program in an exploratory fashion were gathered using (1) interviews, (2) participant observation, (3) routine hospital documents (medical records, nursing reports, etc.), (4) a scale

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than did men--this was laid to differences in the social demands and achievement expectations for men and women.

designed to measure staff attitudes toward patients--i.e., the degree to which staff members accept patients "in the social and emotional sense, were optimistic or pessimistic about the outcome of mental illness, and believed in the potential social competence of patients and their ability to establish relationships with other persons" (Greenblatt, 1955, p. 283). This was administered before the experimental program was introduced, and again eighteen months after its inception. (5) A questionnaire designed to measure attitudes of aides toward their work. (6) A ward socialization index to record at any given time the activity of every patient. This device was also used to provide feedback to the nursing staff as the project progressed, and should also be considered a part of the experimental intervention.

The intervention must be described on two levels; at the level of hospital organization, and at the level of ward organization. The initial step was the formation of a steering committee, the Committee for Patient Care. At first this group was composed of five persons from the Nursing Service and one M.D. Gradually, other doctors, nurses and ancillary service personnel were added until the group became a fairly powerful and autonomous goal-setting elite containing from fifteen to thirty-three persons. This committee was responsible for initiating and/or coordinating changes at the level of ward organization which had a direct impact on the patient.

On a ward for disturbed patients it was observed that under the leadership of the ward physician the attitudes of the nursing staff toward the patients changed considerably. They made a coordinated effort to reduce the amount of time spent by patients in seclusion. In

four months, patient-hours in seclusion dropped from 265 to 1, and the number of patients involved dropped from ten to one. There was also a vastly decreased use of sedative drugs. Abandonment of physical restraints was possible as patients were motivated to participate in a variety of activities including group therapy, and were given greater freedom of movement. The authors attribute these changes to the fact that staff members had changed their attitude toward the patient and his potential for instrumental engagement.

On a special ward for long term "institutionalized" patients who were classified as "elopers," an attempt was made to overcome therapeutic pessimism among personnel and elicit their constructive participation with patients, modify fixed routines and restrictions, reduce class barriers among staff members, and emphasize consensual treatment goals. Again with the urging and leadership of the ward psychiatrist a variety of changes were made in the organization of the ward. Electroshock therapy was utilized with some patients who had responded to EST in the past. Group therapy was begun with aides participating. Ancillary personnel (OT and RT) and community volunteers were drawn into ward activities in order to compensate for under-staffing. Some previously locked doors were opened, furniture was repainted, pictures and curtains hung. All patients were sent to the cafeteria for their meals and the cafeteria was redecorated. Patients were urged to take responsibility for self-maintenance, grooming, feeding, etc. A number of patients were given ground privileges and all were taken for excursions off the ward.

Patients responded by participating in these activities. Noisy and hostile patients became more relaxed, and the socially withdrawn became more outgoing. All of them dressed themselves and evidenced interest in their appearance and surroundings. There was a much higher degree of spontaneous participation in activities. Staff and patients were more satisfied with their lot, and relatives and friends were more involved with the patient's well-being.

Similar steps were taken in a building housing 190 geriatric patients, many of whom were mute, incontinent, not dressed and immobile. In seventeen months the average proportion of patients engaged in constructive social activity on the wards rose from 7 to 37 per cent. One hundred ten patients went regularly to a corrective therapy unit, and forty patients went to special therapies in other parts of the hospital.

At Metropolitan State Hospital a comparable program was established, drawing upon nursing affiliates to work with chronic patients, on both male and female wards. Here again the rate of constructive social activity increased markedly, as simple activities, basic resources (like razors and mattresses), and a more pleasant environment were provided on the wards. The biggest limitation to the program at Metropolitan State was the lack of sufficient personnel to maintain the number and variety of activities that could have been utilized.

From these findings, the authors conclude that ". . . the very regressive behavior of extended duration in these long hospitalized schizophrenic patients was in no small part the result of the institutional environment" (Greenblatt, et al., 1955, p. 346). What else can we conclude from these experiments? It seems clear that patients can

and will participate in a variety of programmatic innovations, but we still know relatively little about the impact of the experimental intervention on the personality of the patient. To say the same thing in terms of a behaviorist vocabulary, we do not know the extent to which behavior patterns observed on the ward would generalize to other social environments. The fact that discharge rates usually rise when such a program is instituted suggests that perhaps some relatively stable restructuring takes place. On the other hand, increased rates of discharge may simply represent a change of staff attitude toward the possibility of discharge (which in itself would be an achievement).

Studies Dealing With Geriatric Patients

What have been the consequences of the milieu therapy movement for the treatment of geriatric patients? In most of the large, public mental hospitals of the United States, particularly state and Veterans Administration hospitals, geriatric patients represent a large proportion of the patient census.[1] Until recently these thousands of elderly persons have vegetated on impoverished "back wards," receiving the most rudimentary sort of custodial care. Others have become good "institutional cures," having been incorporated into instrumental roles as

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[1] It is interesting to note that in the age range one to fifty the proportion of mentally ill in the total society has remained relatively constant from 1840 to the present time. Goldhamer and Marshall (1949) present a brilliant documentation of the proposition that "there has been no long-term increase during the last century in the incidence of the psychoses of early and middle life" (1949, p. 92). There has, however, been ". . . a very marked increase in the age-specific admission rates in the older age groups. The greater part of this increase seems almost certainly to be due to an increased tendency to hospitalize persons suffering from the mental diseases of the senium" (Goldhamer and Marshall, 1949, p. 91).

as farmers, maintenance personnel, food handlers, etc., within the hospital society.[1]

The source of such a large sub-population of geriatric patients is two-fold: First, until recently, most of these institutions were not treatment centers, but repositories. Many of today's geriatric patients are persons who entered the hospital in young adulthood or middle-age and grew old in the institution. As these hospitals have shifted in function from repositories to treatment centers, the energies and resources of the institution have been devoted first to the younger patients. Secondly, the geriatric population in the hospital is also a function of an increase in geriatric first admissions which reflects an increase in the proportion of older persons in the larger society.

Since the war more attention has been focused on the problems of the elderly mental patient. Three questions predominate: (1) Are persons who have been hospitalized for so many years able to respond to treatment programs? (2) Are patients whose first psychiatric encounter occurs in old age capable of responding to treatment? (3) What treatment technologies are feasible and appropriate to the needs of older mental patients? Most of the post-war experiments have been addressed to questions (1) and (2). The third raises a chronic, unsolved problem --not only for geriatric mental illness, but for the whole field.

In some cases the experimental innovation consists of intentionally changing only one aspect of ward or hospital organization. Spalding (1961) for example, arranged for patients to participate in a

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[1]In view of the current 6% labor surplus, this may not be the worst of all possible solutions--except that so much more is possible in a society as affluent as ours.

variety of tasks instrumental to the maintenance of a VA domiciliary unit.[1] Usually, however, the experimental intervention consists of at least several of the following: increasing staff; special training for staff; systematic attempts to change the attitude of staff members toward geriatric patients; improving the physical environment; occupational therapy; recreational therapy; physical therapy; intensified physical medicine; work or industrial therapy; and intensified efforts with psychiatric therapies, such as drug treatment, electro-convulsive therapy, group psychotherapy and dyadic psychotherapy.

One of the better studies of a global treatment program is reported by Burdock, et al. (1960) and Sklar and O'Neill (1961). At Central Islip State Hospital 111 experimental patients and 105 control patients (all female) were randomly assigned to an intensive treatment ward and a control group (routine custodial care), respectively. All were ambulatory, over 65 years of age, and diagnosed senile psychosis, psychosis with cerebral arteriosclerosis, or psychosis with cardiovascular renal disease.

The experimental ward was redecorated, the ward staff increased, more space was made available for each patient, patients were encouraged to talk with the staff psychiatrist on his daily rounds, group therapy was conducted weekly by the ward social worker, ward-staff meetings were

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[1]This could not be accomplished in a vacuum--undoubtedly there were changes in staff attitudes, the relations of some patients with kin-folk, and so on; but in describing this and other studies I will restrict myself to the purposive acts of the change agent, rather than attempting to make inferences about the unanticipated consequences of an experiment on the basis of limited information about it.

held regularly, and patients were encouraged to participate in OT, RT, and PT. A "simple manifest behavior" rating scale was administered at five days, four weeks and six months, and gross ratings of the patient's condition were made at the end of the first year.

After five days there was no difference between the experimental and control patients, but at four weeks a significant proportion of the experimental patients were markedly improved as compared with the control patients, and by six months too many experimental patients had been discharged (51 as compared with 9 controls) to permit statistical comparison on behavior ratings. The rate of discharge did not remain constant, however. At one month it was 5 per cent; by the fourth month it had risen to 10 per cent, but by the end of the first year it had dropped again to 1 per cent.

At Downey VA Hospital a 24 hour program was established to provide physical medicine, occupational and physical therapy, toilet training and various other activities (Blustein, 1960). At Fergus Falls State Hospital both male and female geriatric patients were exposed to a "community-like milieu," participation in hospital industries, part-time ward work, OT, group therapy, time and place orientation training, and for some patients, psychotherapy and EST (Rechtshaffen, et al., 1954; Atkinson, et al., 1955; Pappas, et al., 1958). The Geriatric-Psychiatric Service at the Sepulveda VA Hospital intensified their already existing efforts to provide psychiatric care, psychological testing and rehabilitation, social workers, physical medicine and rehabilitation, OT and RT (Manson and Hall, 1961; Manson and Engquist, 1960). Kurt Wolff (1956, 1957a, 1957b, 1958, 1959) reports his efforts

to establish OT, group therapy, chemotherapy, improvement of the physical environment and individualized training to geriatric patients at Osowatomie State Hospital in Kansas.

None of these studies report failure; all of them support the proposition that geriatric patients, as a class, are capable of participating in the kinds of activities which are thought to be central to the therapeutic milieu. Nearly all of the studies base their evaluations on impressionistic data, reporting that patients seem happier, are better oriented to time and place, and generally show increments in physical condition, "activity level" and ability to participate in interpersonal relations. One study, however, which allowed two weeks of rest after experimenting with five different activities for four weeks each, reported that the effects of each treatment "disappeared within a few days of discontinuing stimulation" (Cosin, 1958).[1]

Studies which utilize discharge rates report that the initial impact of the experimental intervention is a marked increase in the rate of patients leaving the hospital. As we have already seen in connection with the Central Islip State Hospital study, the discharge rate does not remain constant over time. In the first experiment at Fergus Falls (there were three), Rechtshaffen (1954) writes that chronic patients exposed to a global treatment program (which included work therapy, OT,

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[1]Studies by Wolff (1956, 1957a and b, 1958, 1959), Hanford and Papathomopoulos (1962), Spalding (1961), Cosin (1958), Bourstom and Brasie (1958), and Blustein (1960), base their evaluation of outcomes solely on observation and impression. (Blustein collected data systematically using a Hospital Adjustment Scale and the Wittenborn Psychiatric Rating Scale, but does not report the findings.)

group therapy, and after-care planning) were leaving the hospital at a rate which was 338 per cent higher than that of comparable periods for the two years preceding the experiment.[1] One of the criteria on which patients were selected was that they should have a "good prognosis." As the good prognosis patients were "used up," the discharge rate dropped. The second project, which followed immediately on the first and incorporated some of the subjects from the first, resulted in the discharge of 13.5 per cent, or 164 per cent higher than the comparison periods (Atkinson, 1955). A third study in the same unit was done by Pappas (1958), using a control group (matched pairs, male and female). They report that while there were positive differences in orientation, ideation and emotional tone to the advantage of the experimental group, there were no differences in "overt behavior," and no differences in discharge rates. Pappas' study comes after Rechtshaffen and Atkinson had been working with these patients for a year. The only other controlled study to utilize discharge rates is reported in articles by Burdock (1960) and Sklar (1961) which were described above. Recall that the discharge rate for their subjects rose to 10 per cent by the end of the fourth month of treatment, but stabilized at 1 per cent by the end of the first year.

These data must be interpreted in the light of several possibilities: First, it may well be that an experimental intervention affects not only the patient's readiness for discharge, but the

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[1]This figure of 338 per cent should not be misinterpreted--it represents 46 out of 171 patients, or 27 per cent. In other words the proportion of patients discharged during the comparison period was fairly small, roughly 8.2 per cent.

attitudes of the staff toward discharge as well. The very presence of treatment goals can sensitize doctors, nurses and aides to the possibility of discharge, where this had never seemed a live option prior to the entrance of the change agent. Second, discharge depends not only on the attitude of the staff and the condition of the patient, but it also depends on the availability of openings in the outside community. I have seen a number of patients pronounced "cured" and ready for discharge, only to wait months before a suitable placement could be made in the community. For this reason it may be misleading to evaluate an experimental program on the basis of discharge rates when failure to discharge may result from a lack of appropriate institutional or family placements, or the unavailability of welfare support in the larger community. Thus the fact that most of these studies report that the rate of discharge increases after a change is initiated, followed by a decline and stabilization of the rate, may indicate (1) that there is a limited sub-set of patients who respond to the program and whose condition is improved; (2) there is a limited sub-set of patients who would have been able to leave the hospital, with or without the experimental intervention, if staff had made some effort to get them out; and/or (3) either (1) or (2) is true, but there is a limited number of niches available in the community to receive geriatric mental patients.

It should be possible to determine which of these alternatives is most likely. If the treatment has some independent impact on the personality and behavior of the patient, then it should be reflected in other sources of data, such as performance on psychological tests, behavior ratings and psychiatric evaluations. Using the Lorr

Multidimensional Scale for rating psychiatric patients, and Lorr's Hospital Adjustment (rating) Scale, Wolff (1959) finds no change in his experimental group with respect to emotional status and conceptual organization, but his control patients showed a tendency toward increased impairment in these areas. Similarly, he found less behavioral disorder on the experimental ward, decrease in motor disturbances among experimental patients, and more manifest deterioration of mental status on the control ward. Burdock (1960) and Sklar (1961) report significant differences between experimental and control patients on behavioral adjustment variables. Pappas (1958) on the other hand, reports differences in structural variables--orientation, ideation, and emotional tone--but no difference between control and experimental patients in overt behavior. I find it difficult to resolve these findings, in view of the differences in treatment programs and the paucity of information about the conditions under which the various tests and rating scales were administered.

Conclusion--the Distinguishing Characteristics of Milieu Therapy

I have discussed the historical development of milieu therapy as a means of dealing with mentally ill persons, and in particular old mentally ill persons, and described and criticized a number of fairly recent studies which attempt to evaluate different forms of milieu therapy. It remains necessary to summarize the distinguishing elements --to bring together in one place the practices and procedures which have been associated with the concept. No single attempt at milieu therapy embodies all of these tenets--this would be impossible, since

some of them are based upon contradictory assumptions about illness and treatment. But I shall reserve a detailed discussion of theories of milieu therapy for the next chapter.

One assumption that all milieu therapies do seem to share is that most mentally ill people should be removed from their morbid environment and placed in some sort of asylum; which is to say that the locus of therapy is, in Goffman's terms, a total institution. The treatment requires fairly complete control over the social and physical stimuli which impinge on the actor. As far as possible, the physical aspect of the institution should be aesthetically pleasing rather than harsh and depressing.

Next, practitioners have some fairly definite ideas about the way in which people in this institution ought to relate to one another, especially about the ways in which staff members should behave with patients. For example, staff members (and presumably patients as well) should be kind, supportive and permissive rather than cruel, rejecting and authoritarian. This should be understood as a reaction against many practices which prevailed in state hospitals and other mental asylums. When the therapist says "An attendant should be kind and supportive" he means that he should not do either physical or psychological violence to the patient; he should not whip him, or ridicule or ignore him. Very few proponents of milieu therapy would argue that patients' wishes must never be denied or that no criticism is admissible.

In fact, it is an important tenet of many milieu therapies that staff members ought to promote a stable and predictably secure environment, and this inevitably demands some degree of constraint and control

over the individual's expression of impulse in the interests of organizational equilibrium. The point is that social controls should facilitate rather than impede the joint participation of patients and staff in the therapeutic process.

All of these procedures are possible only if there are important changes in the traditional social organization of the custodially oriented institutions. It is necessary to "make the organization healthy" in order to treat the patient. Two assumptions are critical: (1) every event which the patient experiences is potentially therapeutic or anti-therapeutic; (2) everyone is potentially a therapist, or presumably has the capacity to induce morbidity. In order that the therapeutic potential which exists in all events and all participants might be realized, it is necessary to break down communication barriers which are enforced by rigid lines of status differentiation in the hospital. Patients, attendants and nurses must come to see that they have some legitimate voice--and responsibility--in institutional decision-making; the doctor is not the sole and final arbiter of institutionalized authority. These changes are usually embodied in such procedural arrangements as patient government; attendants (and sometimes patients) participating with nurses and doctors in staff conference, and being encouraged to participate on equal footing; and a diffusion of authority and responsibility for many administrative and "treatment" decisions.

CHAPTER II

THEORY

The renaissance of moral treatment as "milieu therapy" has been linked to the development of a social psychological orientation among psychiatrists and nursing personnel, especially in institutions associated with universities and medical training centers. It should be no surprise that the bearers of the new culture should be social scientists whose scholarly interest in the analysis of large-scale organizations combines with a sincere concern for the amelioration of social problems. The mental hospital as a research site is at once available for inquiry and sorely in need of reform and reorganization.[1]

The Functionalist Model

This social psychological approach is exemplified in the works of Stanton and Schwartz (1954), Caudill (1958), and in several collections of articles, edited by Greenblatt, et al. (1957), and Wessen (1964). In all of these works one finds the axiomatic slogan "the mental hospital is indeed a social system," but very little about the nature of the pathology (mental illness) which the institution is intended to deal with.[2] In fact, the notion of illness is left rather vague and

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[1] For an interesting discussion of the mutual attraction of hospitals and social scientists, see Perrow, 1964.

[2] A notable exception in the literature is Cumming and Cumming (1962). This work will be discussed in detail below.

undefined. Parsons (1957) describes mental illness as a state of impaired psychic functioning of the individual; but, he says, unlike somatic illness, which is intra-psychic, psychosis is primarily a matter of the relations between personality and social system. A mentally ill person is one who cannot get along with his fellows. Scher (1957) suggests the notion of an "intercessor" which stands between the patient and significant others. In the case of psycho-neurotics, the intercessor may be an inappropriate defense mechanism, while for psychotics the intercessor is very often a pseudo-world, a delusional construct which interferes with meaningful interaction. Williams (1957) describes personality as the incorporation of social roles. Thus we might conclude that pathology in personality organization and function must involve the importation of "sick" roles, or a failure in synthetic ego functions, but very little is said about these possibilities. Similarly, Greenblatt (1955) claims that the removal of communication barriers in an institutional setting will promote the health of the communicators. It would seem reasonable therefore to suggest that the presence of communication barriers promotes mental illness--but just how, and under what conditions, and with what effect, is not known.

In general, it is assumed that mental illness is a function of the transactions which occur between the actor and his social environment. Witness, for example, the following selection taken from Stanton and Schwartz (1954, p. 27):

> Since psychiatrists often use the words 'social' and 'interpersonal' as synonymous with 'environmental,' it is necessary for us to explain what we mean by them. We have assumed throughout the study that all human beings are continually engaged in social activity, that every recognized 'mental phenomenon' is, in fact,

> treatable as a part of this continuous interaction with other people. This applies not only to situations in which one consciously takes another person into account and deliberately or semi-deliberately plans what one is going to say or do with reference to him; it also includes mental activity of the so-called deeper layers of personality, and the defenses. Impulses do not function without relation to the current social situation but can be aroused, satisfied, or altered by one's perception and interpretation of it. All aspects of personality are a part of current interpersonal relations but in ways which are by no means clear.

Thus, behavior--including pathological behavior--is in large part a function of the social system of which the actor is a member. If we wish to understand and alter the inappropriate behavior of patients in a mental hospital it is necessary to examine carefully the structure and function of the institution, looking for anomalies, strains, conflicts which might give rise to personal disorganization. This approach is viable only if you posit a direct causal relation between social system and personality, such that personality and social system are consonant, varying together. Thus Polansky, White and Miller (1955, p. 381) assert that "the social structure of a mental hospital is interdependent with the enduring ego-integration of the patients under care." Richard Williams, discussing the theory of action as it is relevant to milieu therapy, says,

> . . . it is concerned with the genesis and development of social personality, and the tendency of actors to <u>conform</u> to meaningful patterns of behavior. In earlier versions, it tended to look at the problem in terms of the postulates that social systems are 'real,' that they have their own requirements and that man, at least, could not do without them. It tended to think of conformity largely in terms of a constraint to conform, emanating from society as a set of conditions external to the individual. As this theory has evolved, it has tended to be concerned with the intimate processes of personality development from earliest infancy on, and to regard the major elements of the social system as being built into the structure of personality. In fact, the 'individual vs. society' has, essentially, ceased to be a

> theoretical issue. Put in slightly different terms, problems of social 'motivation' and of social 'control' acquired a common theoretical base.[1] [1957, p. 622]

Williams goes on to emphasize another, but not so central concern of action theory, namely the genesis and development of deviant behavior, "the sources of needs disposing the actor toward alienation and withdrawal, in relation to underlying needs for security, and . . . the sources of more 'aggressive' deviance, in relation to underlying needs for adequacy" (1957, p. 622). He then poses a critical question for the theory of action, "What is it doing with personality anyway?" (1957, p. 622). His answer is a useful truism, ". . . personality systems and social systems are both systems of action, and should be encompassed in the same generalized theory although they are analytically discrete entities" (1957, p. 622). It will be my contention that until recently theories of milieu therapy have failed to consider sufficiently the role of personality, and more generally, the role of <u>person</u> in the Lewinian equation B = f (P and E).

The point of view adopted by milieu therapists rests, in part, on the assumption that contemporary behavior is best understood as a function of contemporary forces. While not rejecting psychoanalysis, for example, as a theory of personality and approach to treatment, these authors tend to disregard ego's past in attempting to explain his

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[1]This is an overly simple statement of the Parsonian "theory of action" with respect to the relations between personality system and social system. (Cf. Parsons and Bales, 1955.) It seems especially important when dealing with a total (and often repressive) institution that we retain, and perhaps emphasize the distinction between "social control" and "social motivation."

present condition. Thus, anxiety and aggression among patients on a psychiatric ward may be caused by conflict between members of the clinical staff over the correct course of treatment[1] (Stanton and Schwartz, 1954; Caudill, 1958).

Another assumption upon which milieu therapy is dependent is that personality is responsive to--indeed is formed by--the incorporation of aspects of social organization, in particular expectations associated with social roles. It follows from this that personality must, in some respects, be isomorphic to elements of social structure. The "elements" of social structure which are incorporated into personality are social roles--shared expectations about approved behavior in specific social statuses or positions.

Seen in this light, theories of milieu therapy rest heavily upon transactional functionalism--the theories of Mead, Cooley, and Dewey, but especially Mead's theory of mind. Mead's problem, and that of the milieu therapists, is to describe the conditions which promote rational, self-conscious, problem-solving behavior, i.e., the development and maintenance of mind and self. "Mead locates the foundations of

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[1]Perrow makes a convincing argument that this lack of historical perspective leads to an over-emphasis on person-environment transactions, and a failure to give sufficient weight to intra-psychic pathology (1964). One almost becomes convinced that the hospital and its staff are sick, but not the patient. Certainly events in the immediate environment can "cause symptoms"--but some symptoms are, or seem, impervious to environmental manipulation; they represent relatively stable, "built-in" dysfunctional patterns of defense. To illustrate with an analogy from physical medicine: Some disease states can be cured by simply removing a noxious stimulus from the patient's environment, certain types of allergenic reactions, for example. Other disease states however, have induced a more stable restructuring of the organism and their cure or amelioration requires more drastic measures--cancer is an example.

rationality in symbolic responses which people provide for the covert aspects of each other's behavior. If those responses are absent, men cannot think reflectively" (Swanson, 1960, p. 7). Rationality means seeking and finding instrumental relations with an environment, such that organismic requirements are satisfied. This is not a simple stimulus-response description of the act, for the relation between organism and environment is transactional.[1] The act of knowing, say the functionalists, alters both the knower and the thing-known. (Cf. Dewey and Bentley, 1949.)

> The picture that we get is the following: In the interrelations of organism and environment, the selection of the organism is responsible for the form of the objects in the environment and the organism's sensitivities for certain qualities of these objects, while the environment is responsible through its stimulations for the response of the organism. [Mead, 1938, p. 430]

In other words, the object as a thing known and experienced is constituted when there is a transaction--an exchange of energy--between object and environment.

Thus Mead begins with the act, defined as an impulse which maintains the life process of the organism by the selection of certain stimuli in the environment. The gesture is a sophisticated act in a social situation which leads to a "conversation of gestures," the significant symbol, and the development of self with its component phases,

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[1] Caudill uses the term "self-action" to refer to the act of a single individual, "interaction" to describe relations between several individuals, and "transaction" to describe ". . . processes going on throughout the entire hospital." He says, "this concept is taken from the philosophical work of Dewey and Bentley. . . ." Dewey and Bentley use the same word, but their definition bears not the faintest resemblance to Caudill's. (Cf. Caudill, 1958, p. 15; Dewey and Bentley, 1949.)

the "I" and the "Me." As we shall see, the origin of the gesture is a behavioral matter which does not involve self-consciousness, but does permit appropriate responses to the stimuli presented by other organisms.

Mead's theory of the self is based upon a consideration of language, for it is only in the process of communicating with other human beings that the individual can become an object to himself. To understand the process of communication between persons it is helpful to examine the conversation of gestures. The gesture is the act of an individual engaged in some sort of concomitant activity with other individuals. In this situation, the initiation of action on the part of one organism provides the stimulus to action on the part of another, and the response of the second organism then in turn becomes a stimulus to the first, and so on.

For human beings this S-R process is a precursor of meaningful communication. In the case of language, meaningful communication occurs when both parties to the conversation of gestures respond in like manner to the spoken word (and other motoric signals associated with the spoken word). If we were to examine this process in slow motion we would see that Person A gestures and responds to his own gesture. Person B responds in like manner and reacts. B's reaction continues the communication process so long as A and B are able to respond in like manner to a body of common symbols.

From the point of view of social organization this ability to respond to one's own gesture as another responds to it is the foundation for cooperative human social activity. On the other hand, in the

developing child this ability is seen as a direct consequence of social activity. Rational conduct depends upon the individual's ability to take account of himself as an object in a field of activity which includes others.

It is impossible, says Mead, to conceive of a self arising apart from social experience. Communication--the reciprocal sharing of response to gestures--is the cement that binds social relationships and facilitates rational cooperative behavior.[1] The self is seen as a structural process in the conduct of the individual. It is an object to itself, capable of being distinguished from the physiological aspects of the organism (for example, we can lose an arm or leg without necessarily suffering severe alteration of the self, as defined by Mead), but does not include all elements of experience. Awareness of objects or events is not incorporated into the self, except insofar as such environmental objects become implicated in the cooperative instrumental activity of human beings.

". . . The structure of the complete self is thus a reflection of the complete social process" (Mead, 1934, p. 144). Once the self is developed, it can provide its own social experience, even in the absence of other people. Solitary meditation is a conversation within the self, where thinking is seen as preparatory to social action--a dress rehearsal which may, however, change the nature of the drama which follows.

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[1]One should note that, in all likelihood, a concept of self is distinctly human: animals do not have it because they do not have the capacity for significant communication, i.e., the process of taking the attitude of the other toward a given gesture.

It should be pointed out that conversation between persons need not always involve this process of sympathetic vibration, i.e., taking the attitude of the other. Much of our everyday interaction with others operates as does that of the dramatic actor who knows that a given gesture will evoke laughter, but does not share this response with his audience.[1]

Nonetheless, rational social activity directed toward a given problematic event demands significant communication. That is to say, rationality in social behavior

> . . . means that the type of response which we call out in others should be so called out in ourselves, and that this response should in turn take its place in determining what further thing we are going to say and do. [Mead, 1934, p. 149]

The self is not fully developed at birth, but grows and matures with the individual. This process of development is best understood by observing the conduct of the child as he plays and as he participates in organized games, events which are of central importance to the genesis of the self.

When the child plays at something--being mother, father, soldier, sailor, etc.--he is assuming a role and behaving in terms of the attitudes which are inherent in that role insofar as he has learned these attitudes from other people. Later in life, when he participates in an organized game, the child must become ready and able to take the role of everyone else in the game at a given time and in a given

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[1] For a perceptive, as well as entertaining, illustration of protracted noncommunicative interaction, see Robert Gover's One Hundred Dollar Misunderstanding (1963).

situation. The responses of the other participants must, to some degree, be present in him. Participation in the game is more complex and leads to fuller development and organization of the self, because in the game, as contrasted with play, the child must assume the attitudes of a number of specific others in a situation which provides for interdependent social activity.

Clearly, the child's self is not completely organized by participating in the game. His life is not organized as a whole. In order to understand the genesis of a complete self we must consider his participation in a variety of socializing situations and introduce the concept "generalized other." Unity and completeness of self derive from continued participation in organized social activities which are more varied and extensive than the game.

By virtue of his participation in the activities of social groups to which he belongs the individual learns the organized social attitudes of many "others." Mead distinguishes two very general kinds of groups to which the individual can belong: concrete and abstract. Concrete groups are functional units, such as clubs, corporations, etc., the members of which are directly related to one another through frequent contact. Abstract groups function indirectly as social units, and the members are indirectly related to one another, but they represent unlimited possibilities for broadening the social relations among all the individuals of a given social system (for example, debtors, creditors, Catholics, etc.).

Membership in both types of groups makes possible the individual's entrance into definite social relations with an almost infinite

number of persons. Participation in a wide variety of social contexts and structures, via the medium of significant communication, leads the actor to a conception of the "generalized other." This generalized other functions as the specific other does in the conduct of the individual. That is to say, he takes the attitude of some nonspecific "they." He is able to place himself in time and space and social structure without referring to specific other persons; he is more than his parent's child, his brother's rival and his nurse's ward, he is a Republican, a Boy Scout, a good student, a skilled golfer, etc.

There are, then, two stages to the development of the self. The first stage consists of an organization of attitudes of <u>particular</u> other persons toward one another and toward the individual in specific social situations. The second stage is constituted not only by the attitudes of particular others, but also by an organization of the attitudes of the generalized other. Mead sees the organized self as a reflection of the attitudes which are common to a social group or system of groups. He does not mean that the self concept of each member of a given social group is a carbon copy of the next, for each "reflection" occupies a different standpoint in time and space.

Without the functionalist theory the milieu therapy approach would be a good deal weaker. Transactional philosophy provides precisely what a social psychological theory of mental illness needs--a sound assumptive base for examining the relations between personal and social organization.[1] One can legitimately ask, however, whether the

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[1]These assumptions are, of course, not readily testable but are

Meadian assumptions constitute sufficient foundation for such a theory. It seems to me that in concentrating on the "incorporation of social roles" the milieu therapists have said very little about specific relations between social organization and mental illness--unless you are willing to accept their implicit assumption that it is the hospital which is sick and not the patient. The problem is two-fold: (1) the authors that are reviewed in Chapter I do not make full use of, and occasionally distort, the transactional point of view; (2) functionalist theory does not for the most part concern itself with intra-psychic obstacles to instrumental behavior, and must therefore be supplemented with additional theoretic formulations (cf. Swanson, 1960, on this point).

Personality, or in functionalist terms "the self," is formed from birth as the organism engages in ever wider and more complex transactions with a physical and social environment. As we have already noted, the word transaction is intended to mean just that: the maturing organism is not a passive recipient of environmental inputs; rather, it is selective, and as it develops the capacity for instrumental action

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nonetheless useful. As Swanson points out,

> Mead is peculiarly unfortunate in having proposed as a major social psychological premise a dictum that seems untestable, whatever its heuristic value: . . . his judgement that self awareness and reflective thought are products of social interaction which is mediated by language signs and of it alone. The only relevant test of this notion would require a population of biologically normal human adults who had managed, without undue trauma, to become knowledgeable about a differentiated environment, who had learned to employ certain common vocal gestures instrumentally but not reflexively, and who lacked all human contacts from birth to maturity [Swanson, 1960, p. 29].

it is likely to "fight back," to restructure the physical and social environment of which it is a constituent part.[1]

The functionalist viewpoint does not assume that the organism bends to every systemic breeze. The structure of the personality system, once it is established has its own inertia (not that it is immutable), and it is something of a distortion of functionalism to argue, as do Stanton and Schwartz, that "all aspects of personality are a part of current interpersonal relations . . ." (1954, p. 27). At least it is a moot point, and one must view with some trepidation the proposition that participation in a well-organized social system will, by itself, restructure a pathologically disorganized personality. The functionalist viewpoint does not deny the possibility that alterations in organismic structure may be a function of environmental inputs. It is simply opposed to the view

> . . . that conduct is determined solely by the organism or by the environment. . . . Organic necessities and past experience determine the hypotheses which the organism advances in the early stages of action. Once stimuli are constituted, they write their responses to the organism's proposals in a firm, round, determining hand. [Swanson, 1960, p. 16]

Now as for the second problem mentioned above: functionalist theory does not treat the issue of intra-psychic obstacles to rational,

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[1]There is, it seems to me, nothing intrinsic to functionalist theory which contradicts the possibility of enduring conflict between organism and environment, a central element in Freud's social psychology. In point of fact, however, this possibility has not been explored very assiduously by contemporary social psychologists. Talcott Parsons who has made the outstanding attempt to unite Freudian and functionalist theories of personality development, tends to emphasize the "fit" between personality system and social system in an attempt to account for the existence of ordered relations in the latter. See Parsons and Bales, 1955.

instrumental behavior--i.e., to mind. The Meadian theory, for example, deals with conditions under which mind is possible and the conditions under which a conception of self is capable of being developed. In evaluating the relevance of Mead and Freud for social psychology, Swanson asserts that,

> Mead sought the conditions of valid knowledge and defined such knowledge as the appropriate alignment of means and ends, the alignment of the act in its covert and overt aspects with the objective environment; [whereas] . . . Freud's concern was with gratification. Now gratification is not a property of mind. Instead, it refers to the net balance of the organism's profits and losses resulting from his transactions with the environment. . . . Mead takes it as objectively problematic that acts and objects can be well aligned but assumes that gratification will follow if they are. Freud assumes that such alignment is possible, but finds alignment, as such insufficient to assure gratification.
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> Mead tells us how impulses, once aroused, become related to objects with which they can effect an interchange of energy. But Freud must explain why some individuals seem unable to express impulses and why others cannot modify their conduct as a result of encounters with objects. [Swanson, 1960, p. 18]

It is perhaps because the functionalist approach is directed toward explaining the normal, rational and instrumental elements in social behavior that it is insufficient to account for pathology, at least insofar as the individual is the locus of that pathology. In view of this limitation in functionalist theory, the only way to account for pathology and still remain a functionalist is to deny that the <u>individual</u> is sick, and locate the illness somewhere else. This, I believe, has been the line of development adopted by the milieu therapists. Thus mental illness is defined as a "failure in interpersonal relations" (Parsons, 1955), schizophrenia can be "understood" as a "failure at consensual validation," and "the environment can cause a symptom" (Stanton and Schwartz, 1954).

I am not about to argue that interpersonal relations, barriers to consensual validation, and morbid environments have nothing to do with mental illness; rather, that particular relations between such variables and psychopathology can only be fully understood as we increase our knowledge of the person components of mental illness. I would further suggest that only as this knowledge is developed will it be likely that effective treatment technologies will be devised.

A theory of mental illness (or any other pathological condition, for that matter) should have something to say about (1) the etiology and development of the pathology, (2) the intra-psychic and environmental forces which maintain or exacerbate the pathology. These observations, in the case of mental illness, must in turn be based on (3) some systematic theory of personality. To state the problem in less grandiose terms, you have to have some ideas about what is wrong before you can do anything about it.[1] Certainly many mental hospital wards are not fit for human habitation--the ethics of humane custody should dictate their reorganization and improvement. But is that all that's wrong with mental patients? Are they not sick, or is their sickness solely a function of the institution in which they have been incarcerated? If so then the best treatment program would be the destruction of the institutions.

With a viable theory of mental illness, or a restricted class of illnesses (conditions peculiar to the aged, for example), it should

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[1]This does not mean that you have to <u>know</u> what is wrong--rather one can proceed on the basis of alternative competing hypotheses, but hypotheses there must be.

be possible to conduct research into the efficacy of treatment procedures with dependent variables clearly specified in advance. As it is, the dependent variables are seldom rationalized in the literature; rather, impressions, or ward behavior, or discharge rates are reported as if the relevance of the measures were self-evident. What is further required, it seems to me, is a theory about sick people in organizations, not people in sick organizations. This means that social psychological inquiry should specify, and then distinguish among organizational goals; i.e., treatment of patients, custody of deviants, rehabilitation of treated patients, maintenance of the organization, and training personnel; perhaps assigning priority to the rehabilitation and treatment goals, but dealing with them separately before considering problems of coordinating one with the others. There is no necessary reason, for example, why a healthy, efficiently run organization should produce healthy, competent patients--in the absence of an effective treatment technology. Thus, when Greenblatt and his colleagues report that the first step from custodial to therapeutic care is to remove the basic evils (seclusion, inadequate food, brutality, inadequate clothing, etc.), no research is needed to justify these reforms--we would advocate them even if the discharge rate dropped. But these reforms, however, important, do not constitute a treatment technology.[1]

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[1]By "technology" I mean a set of standard operating procedures, of proven efficacy for the achievement of specific goals, which are capable of being transmitted from one person to another within a reasonable training period. Thus, tranquilizing drugs represent a technology for custodial care of mental patients, and may serve as a primitive technology for the therapeutic treatment of mental patients.

There is, of course, an important assumption underlying my perspective--which is that mental illness involves some degree of restructuring in the organism; that something out of the ordinary has happened to the "person" component in the equation B = f (P, E). If an eighty-year-old patient gives every indication that he is unable to process information, while twenty others around him are engaged in instrumental tasks I find it difficult to explain his confusion in terms of an impoverished environment.

Why is this assumption necessary? A deviant event for which there is a low frequency of appearance in the total population (suicide or mental illness, for example) cannot readily be explained in terms of social system variables alone. Many persons exposed to the same systemic experiences do not indulge in psychotic behavior. If a sick organization "causes" mental illness, why does not mental illness appear more often in other similarly "sick" organizations like repressive prisons or convents? Or, in the case of the "Stanton and Schwartz effect," why does not covert disagreement between doctors in a general hospital produce psychotic symptoms in the medical patients who are the object of this disagreement? Because the patients in the general hospital are, in at least one important respect, different from patients in the mental hospital--they are not mentally ill.

"Ego and Milieu": A First Approximation

An important contribution to a theory of pathology as well as a rationale for treatment is presented in John and Elaine Cumming's work Ego and Milieu (1962). Their approach is based upon the Parsonian

proposition that "the ego grows through a series of successfully resolved crises each of which disturbs a temporary equilibrium but leads to reorganization at a higher level" (Cumming and Cumming, 1962, p. 13; cf. also Parsons, 1955). They avoid many of the cliches and ad hoc propositions that are characteristic of other milieu theories by tying a theory of milieu to a systematic theory of pathology.

Utilizing Hartmann's concept of a conflict-free portion of the ego (Hartmann, 1958), the authors distinguish between two central ego functions, the "executive" and the "synthetic." On the one hand, according to Freudian theory, ego arises in conflict between id, super-ego and reality and functions to reconcile these forces, as a synthesizer. On the other hand, Hartmann argues (and the Cummings agree) that ego functions are also part of the natural endowment of the individual, i.e., there is a conflict-free portion of ego which has executive functions. Thus the Cummings conceive of an ego function analogous to Robert White's "effectance motivation," arguing that instrumental acts directed toward self-fulfillment can operate independently of libidinal motivation (White, 1960). The ego, they say, is "a unitary structure functioning not only to placate imperious biological drives and inescapable social demands but also to invent patterns of intrinsically rewarding action" (Cumming and Cumming, 1962, p. 18).

These two ego functions are, of course, interdependent. The ability of the individual to carry out instrumental acts (executive function) is dependent upon the extent to which he can control libidinal impulse and super-ego constraints in the service of ego (i.e., synthetic function). The authors emphasize, however, that the converse is

also true, that competent executive function will provide the actor with a variety of solutions to conflicts with which synthetic function must deal.

To this structural formulation is added Erikson's developmental concept, ego identity, and his conceptualization of normal personality growth as a result of successive resolution of identity crises (Erikson, 1950). These crisis-points correspond to the major stages of child development. At any given point in development, ego identity occurs when biological impulse, ego functions and the environment are synchronous. A sense of identity produces subjective feelings of "appropriateness and satisfaction"; its opposite, ego diffusion "is experienced unpleasantly as a disjunction between self and society" (Cumming and Cumming, 1962, p. 20).

Another important component in the theory of ego and milieu is Mead's conception of role taking and the "generalized other" (reviewed above, p. 64ff.). These ideas provide the mechanism by which elements of personality and social structure are linked, and are, in turn, integrated with Parsons' theory of socialization (Parsons and Bales, 1955). Parsons sees personality development in the child as a function of the successive experience of a series of progressively more complex, differentiated social systems. As the Cummings put it,

> . . . the organization of personality reflects the organization of society, because both are built up of the relations between people acting in roles. . . . The ego is so organized that the individual, with comparative ease, can assume all the major roles in society: spouse, parent, worker, friend, and so on. [Cumming and Cumming, 1962, p. 22]

The transition from one stage of development to another in the process of development is, as we have already noted, not accomplished

without crisis--the "old order" must be upset before a new equilibrium of organism, ego and social system can be established. There must be a certain disorganization of ideas, attitudes and affects before learning can take place. But if the crisis is successfully overcome the ego emerges as a more complex and stable structure:

> Each time he successfully resolves a crisis or learns to assume a new role, his ego is strengthened because he has internalized a new set of interrelationships, increased his power of discrimination and, perhaps, of hierarchizing, and has added to his knowledge of the world and of himself. [Cumming and Cumming, 1962, p. 28]

Following Federn (1952), the authors assume that there is a subjective correlate to ego function, and they call this "ego feeling" --the affective qualities of ego, "a subjective, experienced state which appears to mediate between the self, perceived as self, and the environment" (Cumming and Cumming, 1962, p. 24). This feeling of "self-hood" is important in view of its persistence through time. In a variety of changing situations, the individual is able to maintain a sense of ego boundary, to distinguish between self and other. Objects, events, ideas which are repeatedly experienced at the ego boundary become "part of the person" experiencing them; so that the loss of some cathected object can be seen as an assault on ego identity, a loss of self-hood.[1]

These ideas then represent the conceptual underpinnings of Cumming and Cumming's theory of ego and milieu. Their own contribution lies in a systematic attempt to (1) further describe ego structure,

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[1]Cf. Goffman (1961) on the concept "identity kit," where he graphically describes the insult to the integrity of the self which is experienced by a new inmate of a total institution when he is deprived of clothing, hair, and other personal effects.

(2) consider ways in which the system is liable to break down, and (3) integrate these theories with a program for re-structuring--i.e., treatment.

They begin with a definition of "ego set" which is the critical unit of ego organization: "an internal representation of a constellation or sequence of events experienced as part of an environment with a specific affective tone" (Cumming and Cumming, p. 32). Ego sets are general in function, which is to say that they are relevant to a variety of situations and are likely to be combined with other sets according to the demands of the situation.

> Thus, the organization of countless fragments of interaction, role playing, ideas, and sensations might result in a group of sets that, taken together, correspond to 'my relationship with my aunt.' This group of sets might then be generalized to 'a relationship with an older female who belongs to my intimate circle,' or it might be used in combination with other sets to produce 'my kindred on my mother's side.' [Cumming and Cumming, 1962, p. 33]

Ego sets must be articulated one with the others, they must be organized into some coherent whole. Through the direct experience of an ordered environment the child's personality is organized. This is possible because the growing child learns not only the attitudes and behaviors associated with the roles of others, but he learns the relations between these roles as well, and is able to place himself in a meaningful system of relationships. It follows, then, that imperfect socialization can lead to ego organization which is in some way deficient, through an inadequate variety of ego sets, or a system of ego sets which is poorly differentiated.

Since change is endemic both to social systems and to persons, the adaptive ego must have a minimum variety of ego sets and a minimum

generality of organization such that change will not produce crisis. And, of course, there must be a certain degree of stability in the environment. When change does occur to some object which has been associated with the self (i.e., some object which is the referent for an ego set) the ego is vulnerable and requires reorganization. This is another way of saying that when ego loses some cathected object he loses a piece of himself, and the damage must be repaired: "loose ends of ideological and affective systems must be tied up and reassigned, perhaps to new objects. Alternatively, some objects may lose meaning and require expulsion from the ego" (Cumming and Cumming, 1962, p. 37). For most people, most of the time, these changes are minor and routine --ego constantly adapts to most situational changes without disturbing the equilibrium which exists between person and situation.

It is assumed that coherent ego organization will be associated with pleasant affects, and ego disorganization with unpleasant feelings. It may well be that by virtue of this hedonic calculus the person is motivated to adapt to change. A sense of identity is generated when "a well-organized ego, supported by adequate biological energy, acts in an appropriate environment" (Cumming and Cumming, 1962, p. 40).

Not all sets are, or could be, salient to every situation. The individual must, therefore, be able to select sets according to their relevance for action, and to order these sets in terms of their potency. This latter facility the Cummings call "hierarchization." Taken together, the individual's capacity for selection and hierarchization constitute his "ego ability," an important aspect of "ego strength," which is ". . . the general capacity of the ego--that is, the number

and variety of sets, the generality and complexity of their organization, and the ability to hierarchize, select, and act out of appropriate organizations" (Cumming and Cumming, 1962, p. 43).

To recapitulate: normal ego growth is accomplished through ego reorganization in response to crises sufficiently severe as to upset the equilibrium between organism and environment.

> . . . A successful resolution of the crisis enhances the ego by increasing the number and variety of sets and the complexity and generality of the ego organization. This brings ego organization into better harmony with the increasing demands of the environment and by the same token confirms the appropriateness of this organization when it is successfully invoked in handling that environment. [Cumming and Cumming, 1962, p. 46]

A crisis state is the result of any event which ". . . challenges the assumptive state and forces the individual to change his view of, or readapt to, the world or himself or both" (Cumming and Cumming, 1962, p. 54). A crisis, therefore, is any assault on the ego, either intra-organismic or environmental, of such magnitude that adjustment is possible only through ego reorganization--increasing the number and complexity of ego sets. By way of contrast, a "problem" does not challenge the individual's assumptive state, and its resolution requires only the rearrangement of existing ego sets.

There are three major typesof crises: (1) "biologically tinged" --crises associated with normal growth which are inevitable in every human organism; (2) "environmentally tinged"--crises which are somewhat less inevitable but nevertheless common in the lives of most human beings; for example, retirement, migration, grief and bereavement; (3) "adventitious" crises which occur by chance with varying degrees of probability, for example, fire, flood and war. The authors feel that

most people react to and resolve all of these crises in three stages. First there is a period of psychological and physical turmoil, followed by a painful preoccupation with the past, and finally remobilization of resources and activity leading to adjustment.

If normal ego growth is a function of the successful resolution of crises such that the status quo is disrupted and a new person-system equilibrium created, then it ought to be possible to "artificially" create the same process in an institutional setting.

> It seems reasonable that growth might be induced by presenting the individual with a series of graded crises under circumstances that maximize his chance of resolving them. In other words, crisis resolution should be a therapeutic tool that can be scientifically controlled. [Cumming and Cumming, 1962, p. 56]

Now the authors turn to a consideration of mental patients and ego failure, focussing on the executive functions of ego, and, in a sense, leaving the synthetic functions and nonego aspects of the organism to the traditional dyadic therapies. They say, in effect, that there are limits to what the therapeutic milieu can accomplish. By implication, they are also arguing that once these limits have been reached, the major part of the therapeutic task has been accomplished. Thus,

> . . . because the milieu is more lifelike than the controlled two-person relationship and because it is assumed that synthetic function can be improved through executive function channels, we would argue that milieu therapy is as effective as dyadic therapy and more easily generalized to the total life situation. [Cumming and Cumming, 1962, p. 61]

I think this assertion may be problematic. It can be granted that successful executive function may facilitate the individual's ability to control libidinal impulse and guilt (synthetic functions).

At the same time, we would also be justified in assuming that severe failure in synthetic functions would set limits on what can be accomplished by way of ego growth in the therapeutic milieu.[1] I shall take up this issue again in connection with the authors' conception of the therapeutic milieu.[2]

The major forms of ego failure are described in terms of the same concepts which constitute ego theory. First, there is ego inadequacy as a result of the individual's lacking a sufficient number of ego sets. The most clearcut example is the congenital mental defective, who lacks the physiological equipment to form ego sets of sufficient variety and complexity. But traumatic injury, cerebral vascular accidents, and arteriosclerotic brain disease can also lead to "ego set poverty" by causing the individual to lose sets which he once possessed.

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[1] I am not trying to "make a case" for traditional dyadic therapies. I would agree with the Cummings that there are serious problems in generalizing behaviors learned in the controlled dyadic setting to other life situations. I do feel, however, that their theory of pathology does not go very far toward dealing with nonego obstacles to instrumentality.

[2] They do, however, make one concession to the fact that we have bodies, by distinguishing between two types of temperament (where temperament refers to "innate, biologically based differences"). The first is the "impinger"--the extrovert who will, in response to threat, attempt to modify the environment rather than alter his existing ego organization, at least until all efforts at modifying the situation have failed. The second type is the "selector"--the introvert who is prone to withhold action until the environment provides cues consistent with his self-image, at least until he fails to find confirmatory cues and ego-reorganization becomes imperative. Having made this distinction, the authors do not make very much use of it, except in a description of the process schizophrenic. Rather they assume that most people perform both kinds of operations, and even the behavior of extreme selectors and impingers remains within the range of normality, everything else being equal.

Often these patients, aware of their failing capacities attempt to compensate with overactivity, confabulation, and other defensive symptoms, which may be exacerbated by the response of people around them. Milieu therapy can be of value to these patients if undamaged portions of the brain can compensate for the areas lost by tissue damage.

Another example of ego impoverishment is the process schizophrenic. Here lack of ego sets is accompanied by an extreme selector temperament such that

> . . . these patients appear to be consistently unable to affirm their ego organizations and assumptive states in interaction and therefore turn to fantasy as a substitute. . . . They may suffer not so much from absolute set poverty but rather from an efflorescence of sets and organizations concerned with symbols, affects, and inner stimuli combined with a relative poverty of sets concerned with action, apperception, and cognition. [Cumming and Cumming, 1962, p. 65]

This is to say that they possess a multitude of sets, few of which have an environmental referent.

The second major form of ego inadequacy is characterized as poor differentiation and spreading of ego sets. The acute reactive schizophrenic falls under this heading. He is unable to choose from among poorly differentiated sets, and consequently unable to deal with the anxiety generated by "his poor fit with the situation. . . . The chronic schizophrenic differs from the acute in having secondary loss of ego sets . . . caused by his withdrawal and by the impoverishment of the environment" (Cumming and Cumming, 1962, p. 66). This and the first form of ego failure have to do with faulty ego development. The next two, according to the authors, represent failures in ego ability, i.e., the ability to utilize existing sets in adaptive action.

Failure of hierarchization is the third major type of ego inadequacy, and includes reactive depressions, the neuroses, and psychotic depressions. Here ego ability refers to the capacity of the individual for mustering appropriate sets, while at the same time inhibiting inappropriate ego sets. Psychotic depression is a special case in which failure at hierarchization combines with poor set differentiation, the result being not only the distressed affects associated with neurotic depression but ambiguous interpretations of stimuli (cognitive failure) and generally impaired contact with reality.

The final type of pathology is described as "acute ego disorganization"--the result of "disastrous environmental conditions" under which ego fails, usually temporarily, manifesting stuperous states or overactive behavior.

I find these descriptions of ego failure vague at certain points. It is difficult, for example, to understand the conceptual distinction between "hierarchization" and "selection" of sets. Similarly, what is the difference between "set differentiation" and "spreading"? These criticisms are minor, and the authors' intention is clear--to develop a clear understanding of ego pathology and devise ways of treating it. Further inquiry into the etiology and dimensions of this pathology will permit a much more comprehensive and useful diagnostic taxonomy.

The task of the therapeutic milieu, say the Cummings, is to facilitate ego restitution--addition of new ego sets, redifferentiation of sets, and competence at selection and hierarchization of sets. These

things will happen if the patient is led to experience a well-organized social structure, and in this protective setting is presented with a variety of problems to solve. Other people in the setting--his peers, and staff members--should help him to act in a variety of clearly defined roles in which he learns to internalize and deal with different cultural values.

Perhaps because they do not treat at any great length the synthetic functions of ego, and nonego aspects of the organism, the authors' description of the ideal therapeutic milieu is in places as vague and ambiguous as that of the other milieu therapists we have reviewed. On the other hand, where notions about treatment are informed by their theory of pathology they make contributions which, it seems to me, go farther than the earlier milieu therapies.

They point out, for example, that the schizophrenic patient, who suffers from poorly differentiated ego sets and an inability to hierarchize sets, will often be unable to process what Bateson calls "meta-communication" (Bateson, 1955, 1956), often nonverbal cues which supplement, and may contradict, the manifest message of interaction. Meta-communication therefore represents information about the message itself, often setting the affective tone of the message. If, however, the schizophrenic is unable to perceive and interpret these subtleties, it is important that staff members go to great lengths to make the intent and affect of their messages perfectly clear, by saying--and perhaps repeating--exactly what they wish the patient to understand, and not relying on tone of voice or nonverbal gestures to get the idea across.

Another point at which theory and therapy intersect is exemplified in the authors' treatment of meaningful work as a therapeutic device. For most people in Western cultures occupation-related sets are central to self-concept. Furthermore, in an institutional setting, work tasks can be graded in complexity and difficulty to provide different levels of challenge to the patient in a supportive environment. Thus work therapy can, if applied with ego-restitution in mind, have beneficial effects on ego-structure. Directed, continuing attention and effort to a task which is repetitive and for which clear-cut criteria of success exist ought to be related to the accumulation of new, well-differentiated ego sets. If the task of one patient is, of necessity, articulated with that of other patients, work therapy can also provide a setting in which the person learns and practices elementary social skills. There is however no systematic tie between these general notions about the efficacy of work therapy and a theory of pathology. What is required, it seems to me, is a taxonomy of pathological types, linked with a growing repertoire of treatment technologies. This development will be facilitated by speculation and research into causes and consequences, but the milieu theorists do not deal with causes, and give relatively little attention to manifestations.

The result is a general theory of pathology tied to a sociology of mental hospitals and hospital wards. Like Stanton and Schwartz (1954), the Cummings argue that authority in the hospital ought to be clearly specified. The responsibility for making decisions should be located according to the impact of the decision on the system--those

who are responsible for general policy should not concern themselves with the minutiae of ward administration, and conversely, ward staff members should not be expected to make general decisions about treatment policy. Although authority must not be abrogated by policy-making elites, information should be distributed widely throughout the system; i.e., there should be two-way transmission of information and opinion. Many hospitals, they point out, have too few upper-echelon staff members, so that important decisions are made informally without purposive and systematic planning, and their consequences are unknown. Properly organized, the institution can present the patient with a continuously unambiguous and reliable social structure, that does not create "adventitious anxiety," and does promote perceptual clarity. If the patients are delegated the opportunity for decision-making within a clearly delimited area, the authority structure can provide the patient with a set of meaningful problems to solve. This, according to the theory should promote ego-growth. The authors do not, however, elaborate on what different types of patients require what different kinds of experience with authority figures and decision-making.

Of course, according to the Cummings the crux of the therapeutic milieu is the patient's experience of roles and role relationships:

> The acting out of the patient role in complement to the roles of others in the environment is the road to ego restitution. . . . Every task that can be organized and performed by patients should be considered for allocation to them--this is the grist for the mill of problem solution. [Cumming and Cumming, 1962, p. 137]

A wide range of inter-related social roles must be available to the patient, and he must be motivated to participate in these roles in

order that ego organization might be reconstituted at a sufficient level of complexity.[1]

So according to the Cummings' theory, the role structure of the milieu can make the following contributions to the patient's ego-organization: (1) it provides a lucid, unambiguous environment; (2) it mirrors back to him widely varied aspects of his own nature (the Meadian assumption); and (3) through the delegation of tasks an effective role system provides the patient with problems, the solution of which promote ego restructuring.

It seems to me that there are three points for which the Cummings' theory must be taken to task: (1) the assumption that the institution will be an effective therapeutic agent to the degree that it is "well organized"; (2) the assumption that personality change occurs when the individual enacts a social role, regardless of the nature of the role and its systemic context; and (3) the (implicit) assumption that "problem" equals "crisis."

We have encountered the first issue before, in our consideration of Jones (1953), Rapoport and Rapoport (1960), Caudill (1958) and Stanton and Schwartz (1954). In these works we are presented with countless examples of the ways in which a disorganized, inefficiently administered institution can be anti-therapeutic, but very little--either by way of evidence or logic--to demonstrate that a

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[1]One problem with this proposition, as with the role theories of other milieu therapists, is that psychotic pathology may take the form of ego's <u>inability</u> to "take the role of the other." This, you will recall, is Freud's problem: the obstacles to rationality which exist before and after mind, and interfere with instrumental functioning.

well-organized, efficiently run institution will be therapeutic. One problem, which the Rapoports (1960) discuss in their analysis of the Belmont Unit, is that some of the values which the milieu therapists attempt to maximize are contradictory, or in conflict under certain conditions. Thus, the atmosphere of the therapeutic milieu must be stable and well-regulated, but staff-members should be permissive; the power structure must be authoritative, but not authoritarian; the patient must be "confronted with reality," but the milieu should not create "adventitious anxiety"; a patient should be encouraged to make decisions for himself, but his decisions may create adventitious anxiety in others; and so on. I suggest that these rather subtle distinctions cannot be put into operation until different organizational strategies can be seen as appropriate to specific pathological conditions.

Second, the Cummings argue that simply being a patient, acting out the patient role in a healthy organization will lead to ego restitution, as if role enactment is always associated with personality change.[1] There is, it seems to me, an important theoretical and empirical distinction to be made between social role, an aspect of social organization, and role-related attitudes which are internalized and become part of ego structure. In other words, it is possible for a person to enact a role (to conform) without adopting as his own the norms associated with that role. Mental patients, draftees, college students and prisoners of war do it all the time. The task which should

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[1]Recall Richard Williams' assertion that problems of social "control" and social "motivation" have a common theoretical base (1957, p. 622). See page 63 above.

be set for the milieu therapist is to discover conditions under which role enactment leads to personality change.

The Cummings take as a prototype for ego growth the process of child socialization, but an important element is left out of their analogy--the fact that the first stages of personality growth take place in a particular social context, that of the primary group. It is, say Parsons and Bales (1955), precisely because the first developmental stage is one of mother-child unity, and succeeding stages occur in the context of family as primary group, that ego growth and eventual autonomy is possible. I am not arguing that only a mother can be a therapist. Rather, I suggest that there is something about the primary group which makes it an optimal context for personality change, namely the fact that its members grant each other unconditional acceptance. Under these conditions ego structure is vulnerable, susceptible to change.[1] In other words, the primary group is one milieu in which there is a high probability of ego growth and change. One looks forward to a theory of milieu therapy which considers ways of using, or purposefully creating, primary groups as therapeutic agents.

The third assumption of Cumming and Cumming with which I take issue has to do with the difference between crisis and problem. In their discussion of the therapeutic milieu, there is a shift in emphasis which is not entirely consistent with the theory of normal ego-growth: "crisis resolution" becomes "problem solving." Recall that the authors are careful to make the distinction between crisis and problem. Crisis

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[1]The mechanism for change, if we take Parsons (and Mead, and Freud) seriously, is identification.

facilitates growth because it challenges the assumptive state of ego organization, and makes it vulnerable to change, whereas problem-solving requires the rearrangement of existing ego sets, without fundamental restructuring. Also, one assumes that many "problems" can remain unsolved without any serious consequences for ego-identity, but a "crisis" demands some kind of adaptive response--a new equilibrium between individual and environment--if further personality development is not to be stunted.

One can readily understand this shift in emphasis. Crises are not easily orchestrated and controlled in an institutional setting. How is it possible to arrange a hospital ward so that maladaptive personality organizations are sufficiently undermined as to permit change, without causing further ego damage which may be irreversible?

In the case of normal personality development, crisis resolution is institutionalized, with specific roles relatively clearly defined for the agent of socialization (parent or guardian) as well as the child. In a very real sense there exists a technology for child rearing (see, for example, Dr. Spock on toilet training, weaning, discipline, etc.) which structure the process of adaptation to crisis and ego-growth.[1] The would-be milieu therapist, however, is not supported by the full weight of a culturally transmitted system of standards and expectations in his attempt to promote personality change.

Of course, this is precisely why the Cummings wrote Ego and Milieu. It is an attempt to change the prevailing ideology of mental

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[1]This is probably as true for bereavement and disaster as it is for biological growth.

illness and psychotherapy. Yet by the terms of their theory of personality, mere problem-solving would not be enough to promote ego-growth. The point I am trying to make is that once a pathological personality has been constituted it too exists in equilibrium with the environment. Now from the point of view of the organism this equilibrium may be maladaptive, and may result in the ultimate destruction of the organism, but in many cases (not necessarily all) it is stable. Whether "opportunity for normal role-enactment" will dislodge such a relationship is problematic.

Personality and Therapy: Some Hypotheses

In the next chapter I will describe in some detail an attempt to establish and evaluate a therapeutic milieu on a ward for geriatric mental patients at Ypsilanti State Hospital. The data from that study provide an opportunity for an empirical examination of the relationships between personality and treatment which have been discussed in this chapter.

A logical, albeit extreme, extension of my criticisms of milieu therapy would lead to the hypothesis that there is no relationship between treatment and change in adjustment; and that there is a relationship between personality and adjustment which operate independently of the patient's exposure to differing treatment environments. Conversely, an extreme statement of the milieu therapy position would lead to the hypothesis that regardless of differences in personal organization, experimental (therapeutic milieu) patients will improve in adjustment while control (custodial treatment) patients will decline or stay the same.

There is, of course, a compromise hypothesis: that aspects of the patient's personal organization will either enhance or inhibit the influence of the various treatments; that the relationship between participation in a milieu treatment program and adjustment will be conditioned by the mental status of the patient and the extent to which he bears a coherent and favorable conception of self.

These hypotheses suggest an analysis of variance design through which one can examine the relative efficacy of personality and treatment variables, and their interactions, for "explaining" variance in adjustment.

It would also seem important to look at personality as a dependent variable, in order to test the Cumming and Cumming hypothesis that the therapeutic milieu induces change in ego organization and function. If they are correct in their view of ego growth, then patients exposed to milieu therapy ought to undergo change in self-concept and mental status in the direction of greater adjustment.

These propositions will be stated systematically and in operational terms in Chapter III, where I discuss research design and methodology.

CHAPTER III

METHODS

A Description of the Treatments

The Organization of the Hospital

The organization of the hospital can best be described on two axes: (1) the disposition of patients by age, sex and condition, and (2) the division of labor among staff members. With the exception of the medical-surgical ward and the experimental ward, patients are segregated by sex so that virtually every clinical function is duplicated on the male and female sides of the institution. There is some degree of segregation by age, with the very old and the very young assigned to the Geriatric and Children's Services, respectively. Patients who are neither very old nor very young (16-60) are under the clinical jurisdiction of the Admissions, the Rehabilitation, and the Continued Treatment Service.[1] A Service is an administrative entity, intended to separate the patient population into homogeneous treatment categories. The actual geographic distribution of patients corresponds roughly to these administrative arrangements; i.e., recently admitted patients are housed

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[1]The phrase "continued treatment" is widely used in state mental hospitals to designate those wards on which very little is done to treat patients. Emphasis should, therefore, be placed on the term continued. In recent years much has been done at Ypsilanti State Hospital to improve the function of the back wards, so that continued treatment has begun to mean just that.

on the admissions wards, patients who are considered to be candidates for treatment leading to discharge are housed on rehabilitation wards, and chronic or unmanageable patients--those who are not considered as discharge possibilities--are mostly likely to be found on the "back 40's" or Continued Treatment wards. While these criteria define the mode for the distribution of patients, there are many exceptions. For example, in order that a great variety of imperative custodial and service functions be performed regularly, some young patients who are in relatively good mental and physical condition are placed on Geriatric Service wards to assist the ward staff in their duties.

The division of labor among the staff members of the hospital follows the traditional separation into medical, nursing, and administrative functions. Ultimate responsibility is vested in the hospital superintendent, who mediates between several power centers--the offices of chief nurse, clinical (medical) director, and business manager. The medical staff--staff physician, residents and nurses--are assigned to the various Services, although some of these persons perform special functions outside the Service organization. The size, structure and staffing of a hospital ward varies therefore with the function it performs for the total institution.

Because the control patients were distributed among twenty hospital wards it is not possible to describe a single control treatment. They were all different from the experimental ward, in that none provided anything similar to the total activities program and none were integrated with the outside world to the same degree, but since there

are also important differences among them we shall describe six general types of control wards.

Type I is a "chronic" ward for deteriorated patients. It houses from 80 to 100 male patients, most of whom show gross disturbance of psychic and/or motor functioning. Partly because of its location and partly because very little is done by the ward staff to enhance the physical attributes of the ward, it is a very dark (the light globes are dirty and contain what must be no more than 25 watt bulbs), and unpleasant place, albeit clean. It is poorly ventilated, and although the patients are bathed regularly, there is an unusual odor about the ward which defies description. The ward is staffed by two to four attendants and receives the part-time attention of a physician.[1] Those patients who can walk are taken to the central cafeteria for meals, the others are fed on the ward. There is no activity program provided, except for occasional walks outside, en masse. The patients pass their time by sitting on chairs or benches which are lined up around the large day-room, pacing the floor, or watching television. At one time there was a piano in the large day-room, and I once saw a patient playing it, but the piano has since been removed. Twice a day, an attendant wheels a cart into the day room and dispenses medications to those who require them.

Not all the patients on this ward are grossly deteriorated; some are placed on the ward for periods of convalescence from surgery while

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[1] In general, ward physicians are responsible for anywhere from two hundred to five hundred patients.

they are not ambulatory and must be on a ward where meals are served. Upon recovery they are transferred to another ward. Some of the patients on the ward suffer from an organic decrement, which renders them virtually incapable of caring for themselves, but which does not require intensive medical attention.

Ward Type II is a closed ward for geriatric patients. The main differences between Type I and Type II are that Type II patients are in considerably better condition, and the ward is somewhat more habitable. A number of the patients on II have ground cards and spend several hours per day outside the ward, walking on the grounds, going to the patient store (if they have money), or working at OT. These are long-term patients, quite capable of caring for most of their grooming and maintenance needs, exhibiting a minimum of bizarre behavior, but with no immediate prospect of discharge from the hospital. Many of these patients will attend church at the chapel on Sunday, go to the hospital movie on Saturday, and otherwise participate in hospital activities, like, e.g., the annual hospital carnival.

Ward Type III is an open ward for geriatric patients. III has a number of single rooms, and small sleeping dorms. It is well decorated, and an atmosphere of warmth and good cheer pervades the ward. All of the patients have ground cards and many work in hospital industries, so that the ward is virtually empty on days when the weather is good. The staff is small, one practical nurse and one attendant during the day, as none of these patients is in need of extensive supervision or custodial attention. There are regular activities on the ward, such as bingo games and visits from community volunteers. In addition, the patients

are encouraged to participate in all of the activities provided by the hospital--recreation, sports, movies, parties, etc.

Types I, II and III are all located in the C Building--or back ward block. This does not mean that none of these patients are likely to be discharged, but there is a moderate correlation between geographic location (i.e., how far back) and probability of discharge. In the B-block, or rehabilitation wards, as a rule the patients receive more attention from doctors and members of the nursing staff, and staff members on these wards are more oriented towards treatment and discharge (with the exception of several functionally specific wards--a ward for convalescing medical-surgical patients, and a ward for incontinent and grossly deteriorated organic geriatric patients). An example is Type IV, a closed ward for geriatric patients, which is staffed by a committed and conscientious physician, a very capable supervisory attendant, and two or three additional attendants. Patients on this ward are involved in a number of activities, both on and off the ward. They participate in projects to decorate the ward (usually around some holiday theme), some work in hospital industries, others work on the ward, and participation in OT and RT. Many of the patients on this ward have ground cards.

Similar opportunities are made available for patients in ward Type V--an open ward for men adjoining the main lobby of the Rehabilitation Block. The long day-room of this ward has been sectioned off to create a coffee shop (with sidewalk cafe tables, bright decorations, and attractive hanging lamps) to which both male and female patients come for coffee and conversation. Patients on this and a corresponding

ward for women participate in "remotivation" discussion groups, patient council, and ward council meetings. Most are employed somewhere in the hospital, and all have ground cards.

Some of the control patients spent considerable time (more than the customary two to three weeks) on one of the admissions wards. Here they may have had a single room or may have been placed in a small dormitory (six to eight occupants). On the admissions ward, the patient receives considerably more attention from nursing staff and psychiatrists than is likely elsewhere in the hospital (except perhaps in the medical-surgical wards), for it is here that every effort is made to treat and discharge the newly arrived patient before he or she becomes institutionalized.

A word about hospital industries: they vary considerably in the kinds of demands which are placed on the patient, and in their potential as a therapeutic or rehabilitative device. In any event, it is difficult to imagine an institution like this one maintaining itself without calling upon its inmates for labor. Patients work on the hospital farm, building and ground maintenance crews, at vegetable preparation, in the kitchens and dining rooms, in the snack bars and stores, on the wards as messengers, in the records room as clerks, in the furniture repair shop, in the laundry and clothing supply rooms, and in the shoe repair shop.

In many ways there are superficial resemblances between these activities and those of the experimental program; but there are important differences. In the sheltered workshop (to be described below) an attempt is made to break down the productive process so that each

person's contribution will articulate with the contributions of others. It was hoped that this would force the patient into instrumental relations with other patients. In most hospital industries, the productive component tasks are more fragmented so that the integration of productive activities is controlled by a staff supervisor rather than the demands of the process itself. Experimental patients were working not for the hospital community, but for the outside community and for themselves. Most of the hospital industries are organized around the needs of the hospital, and the patient (with a few exceptions) receives no remuneration for his labor.

The Activities Program for the Experimental Ward

In February, 1961, after more than six months of planning and preparation, a group of about ten persons from the University's Division of Gerontology began working with patients and nursing staff members to establish a milieu therapy program on Ward B-6-1 in the Geriatric Service of Ypsilanti State Hospital.[1] The nature of this program will, I hope, become clear to the reader as I describe its goals, its constituent activities, and the personnel involved.

It was the intention of the University staff to prevent further deterioration of ego, and support ego restitution by engaging the patient in a series of social activities designed to help him learn and/or practice a variety of interactional and motor skills. It was

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[1]Five of the members of the University group were primarily responsible for the research aspects of the project, but they inevitably became involved in the administration of the program itself.

felt that these activities should be meaningful to the patient in several ways: First, the activities should where possible be familiar to the patient, i.e., consonant with his past experience and not foreign to it. Second, they should be meaningful to the patient in terms of his present situation. They should implicate him in a network of rewarding relationships with the outside community as well as with other patients and hospital staff personnel. Third, they should be meaningful to the patient as preparation for the enactment of roles which the patient would be expected to play should he leave the hospital. Above all, the program should mitigate his adjustment to the hospital; i.e., it was hoped that the program would be an obstacle to the patient's becoming a permanent, institutionalized member of the hospital community.

It was also hoped that participation in these activities would be therapeutic, in the sense that it would lead to personality restructuring for patients who were disoriented or delusional, and that increasing competence at both motor tasks and interpersonal relations would lead to heightened self-esteem and militate against a tendency to utilize inappropriate defenses.

The program was established on a single 80-bed ward consisting of six large rooms, a kitchen and dining room, nursing office, medical treatment room, and a number of smaller storage and miscellaneous rooms (see Figure 1 for a diagram of the ward). The female patients slept in two large dormitory rooms at the front end of the ward, and the males were housed in two similar rooms at the rear of the ward. The front day-room was used as a combination sitting and recreation room, as well

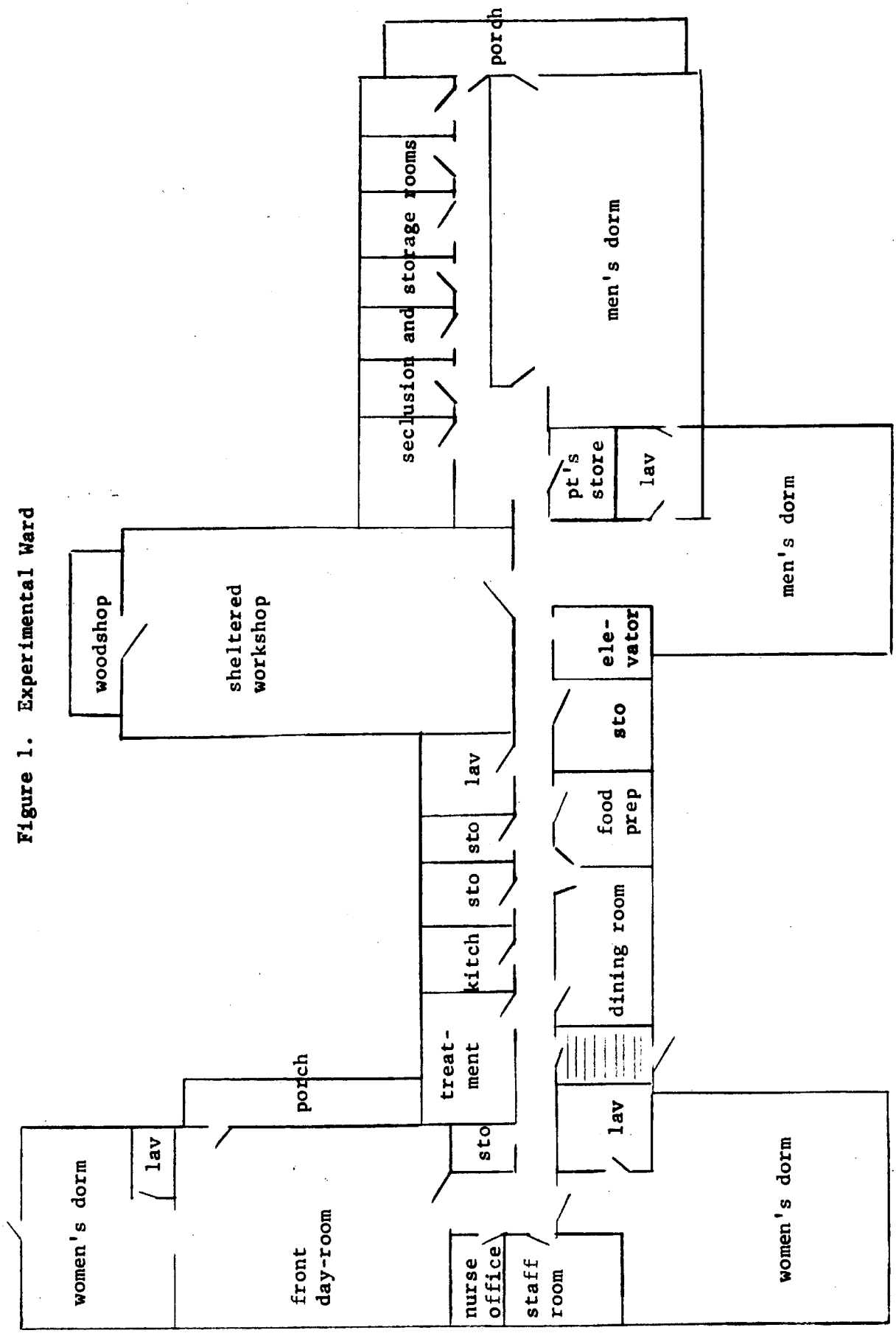


Figure 1. Experimental Ward

as for certain program activities. The other large day-room was devoted primarily to the sheltered workshop and it has a small porch which was glassed-in and used as a woodshop, equipped with several power tools.

A central element in the activities program was the sheltered workshop. In it patients were employed at industrial tasks contracted for with organizations outside the hospital. For their efforts the patients were paid (both at hourly rates and/or piece-work depending on the type of job) at rates which, although not high by extra-hospital standards, were of considerable value to patients most of whom had been without funds. All of the money realized by the workshop was distributed among the patients as wages, except for funds that were used to purchase some supplies.

Under the contractual arrangements, raw materials were brought to the ward where the patients transform them into some finished product. The standards of quality, and often the amount to be produced in a given time, were largely determined by the needs of the contractor, after negotiations with the program staff. Thus, for example, bins of mixed chromed letters were trucked in to the ward every day by a local auto parts manufacturer. These letters were then sorted by some of the patients in the sheltered workshop and placed in boxes to be returned to the manufacturer. Ultimately they were shipped to auto assembly plants to be attached to the cars as they came off the assembly line, so that the amount of sorting to be done by the patients was determined by the production demands of the auto firms. Similarly, patients assembled knobs for auto dashboards (a task requiring patience and skill, as

tiny set screws had to be inserted "just so" into each knob). They also fabricated and packaged hospital swabs and special tracheotomy bandages for the University Hospital. In addition, original craft items such as cutting boards, toys, foam rubber pillows, and Christmas decorations were developed as commercial items and manufactured for sale in local gift shops and to hospital employees.

The program staff tried to break down each job into component tasks such that each patient-worker would be responsible for some portion of the operation that would be within but close to the limit of his capacity. Some of the more confused patients were unable to handle much more than simple sanding, or cutting foam rubber into bits for pillows. At the other extreme, some patients performed complex tasks under their own direction in the woodshop, others took on supervisory and inspection functions.

A small store was set up in what had been a nursing office. It was managed by a patient, who after some instruction, took virtually complete responsibility for keeping track of inventory, requisitioning stock (which was picked up regularly from the hospital store by another patient), and handling the receipts and disbursements. Patients regularly patronized this store to purchase candy, coffee, toilet articles and other sundries. At the same time, patients were involved in an effort to make the ward a more attractive place to live. They participated in decisions about new color schemes for the walls (the actual painting was done by a hospital crew), helped select and hang pictures and posters, and made vari-colored mats for bedside stands.[1]

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[1]One of the most onerous aspects of life on a hospital ward for

Every attempt was made to train and motivate the patients to take care of their own grooming and dress. Men were required to shave themselves (rather than being shaved by hospital barbers who regularly circulate among the geriatric wards for this purpose), women were provided with facilities for washing, ironing and mending their own clothes and were encouraged to do so. Since there were eighty patients, both men and women, it did not seem feasible to alter the hospital practice of having patients take baths and showers at scheduled times, but some of the more competent patients were permitted to follow their own bathing schedule.

The program also contained other recreational activities--picnics and walks during the warm months, excursions in small groups to town for shopping, baseball games, carnivals, and so forth. Many patients were able to go out of the hospital individually with relatives or friends on similar trips. In this connection Friendly Visitors proved valuable adjuncts to the ward staff. These were volunteers from the community each of whom formed a relatively enduring relationship with a specific patient. They spent a few hours or more with the patient, usually once each week.

The experimental ward program was conducted for approximately six hours daily, five days a week by a program director and four

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most patients is their complete lack of privacy. It was originally hoped that some way could be found to construct partitions in the sleeping dormitories in order to provide a modicum of personal space. This turned out to be structurally impossible. There was simply not enough space to build partitions in these rooms, and the old hospital buildings are so soundly constructed of brick and tile that the cost of enlarging the rooms would have been prohibitive.

assistants. In addition several community volunteer workers assisted regularly. The hospital supplied a normal complement of eleven attendants over the three shifts. Unlike most other wards, however, there was also a full-time supervising nurse who served as ward administrator, and the ward had the half-time service of one of the staff psychiatrists. Since the hospital as a whole is understaffed, it is unusual for a single ward (with the exception of some of the admissions wards, and the medical-surgical ward) to have access to half a psychiatrist and the undivided attention of a registered nurse.

The Social Organization of the Experimental Ward

Quite apart from the substantive content of the Activities Program, one must recognize the importance of the augmented staff on the experimental ward. Especially at the beginning of the project year, there were really two staffs on Ward B-6-1: the hospital or nursing staff and the program (University) staff. There was no wholesale reorganization of the experimental ward at the beginning of the project; rather, attempts were made to institute the program within the existing organizational structure and tempo. Thus, at first, the two groups operated relatively independent of one another, with minor accommodations being made by both.

In this early period, both staffs were faced with a crisis of organization. The nurse and attendants had to deal with the fact that eighty male and female patients were to be transferred on to the ward in a period of several months, while approximately ninety male patients (the prior residents) were to be transferred off the ward. They had

all of the routine tasks to accomplish that are associated with the operation of a hospital ward, plus the problem of incorporating new members and adjusting to the experimental program. At the same time, the University staff was attempting to establish the sheltered workshop and other activities in what was, for them, a strange setting.

Note that both staffs had to deal with a heterogeneous group of patients, which is seldom a problem (or certainly not to the same degree) on the control wards. We refer here, not to the fact that the ward contained both men and women (although that was problematic at times), but rather to the wide range of symptomatology and the different kinds of pathology represented in the ward population. On the control wards, the staff nearly always has the option of transferring deviant patients to another ward. Some wards, for example, are specially equipped and staffed to handle incontinent geriatric patients, others specialize as wards for disturbed aggressive patients. Thus, by and large, no single ward staff is called upon to deal simultaneously with a wide <u>variety</u> of problems. The experimental ward staff did not have recourse to transfer as a safety valve; the research design required that once on the ward, no patient was to be moved off except where his need for unusual medical treatment or facilities made this imperative. Thus the ward group consisted of a wide range of pathological types, including incontinent and confused patients, delusional schizophrenics, psychopathic personality types, and depressives.

The two staffs then had different, and at times conflicting, goals. The magnitude of the tasks which they had set for themselves was such that, of necessity, their energies were directed toward

adaptive rather than integrating functions. The University staff was primarily concerned with gathering together the materials necessary to the program, arranging with service departments and the ward patients to redecorate the ward, and motivating and training patients to participate in the activities.

The nursing staff on the other hand was occupied with such tasks as seeing that the patients were clothed, and fed, assigning them to sleeping dorms, preparing and administering medications, controlling aggressive deviant behavior among the more disturbed patients, keeping the ward clean, and maintaining inventories of linens, drugs, etc. Of course, these two groups did not operate in complete ignorance of each other's problems--their paths crossed constantly, and tension reducing accommodations were made extemporaneously when necessary. The point is that during the early months, there seemed to be neither sufficient time nor sufficient energy for careful and systematic coordination of nursing, program and research functions.

Later, as each group established routine devices for solving their particular problems they were in a position to give more attention to the resolution of joint issues. Weekly meetings attended by all staff members were instituted, and a gradual interpenetration of responsibilities and functions were observed. The University staff became more concerned with such nursing functions as housekeeping and training the patient in grooming and self-care; while the nursing staff began to take a more active role in the various activities connected with the sheltered workshop, recreation and craft program.

The entire experimental sample was not constituted at the time the ward program began. In fact, patients were moving onto the ward in small groups for several months after the "project year" had formally begun. Once a relatively stable group had been formed, one could observe the emergence of a rudimentary social stratification, organized along several dimensions: occupation, sex, race, and mental status.

During the first few months of the program, members of the staff made intensive efforts to elicit the participation of all the patients in the activities (these efforts were renewed for patients who arrived on the ward later in the year). Activities and jobs were graded in difficulty so that, with very few exceptions, every patient was provided the opportunity to participate in the program. Thus for example, in the workshop and crafts area the most confused patients were encouraged to cut strips of foam rubber into small bits to be used in pillows, other patients did simple sanding tasks, while the more competent and committed patients performed more complex functions such as sewing the pillow covers, rolling hospital swabs (no easy task, as this writer can testify), sewing and assembling special bandages (tracheotomy pants), or assembling small automobile trim parts. There was, in addition, an elite group who performed key functions--a store-keeper, woodshop man, timekeeper--and a few patients who worked alone on skilled craft items such as weaving.

One should not overemphasize the stability or rigidity of the resulting stratification system. In any geriatric population there is bound to be considerable attrition due to death or illness; and while the discharge rate was never high, patients who performed key roles in

the production process were often the first to be recommended for outplacement.

The occupational stratification of patients according to skill and competence was complemented by informal cliques which developed among the patients during both working and off hours. (By "clique" we mean a viable informal group which comes together at regular intervals, usually in the same region of the ward, to chat and pass the time of day.) There was, for example, a "coffee club" consisting of about a half-dozen persons, who gathered around the ward store after meals. They were among the most competent patients, who exhibited the least amount of psychotic symptomatology; and their daily interaction functioned, in part, to maintain social distance between themselves and the other patients. Their meetings were also the occasion for sharing information and developing strategies, strategies for dealing with other patients as well as with the doctor and the ward staff. Thus membership in this particular elite yielded both instrumental and expressive rewards. It also occasionally made life complicated for the staff, as when these patients decided that they would not leave the hospital on any sort of probationary status--"If I'm well enough to leave, then I should have a full and complete discharge. If I'm not well enough to have a discharge, then I shouldn't leave."

The antithesis to the "coffee club" was another group, "the confused club"--four to eight of the most confused patients regularly congregated around the nursing office, engaged in what one might call simulated conversation. All of the forms of civilized conversation are present, but virtually no information is transmitted or received

(although there is an exchange of affects). Person A makes the following statement: "He's a lovely young man isn't he?" B nods sympathetically, and in quite the proper tone of voice answers, "No, I didn't like the fish, but the potatoes were delicious," and so on.

This group was a subset of the total group consisting of about fifteen severely confused and disoriented patients who constitute the bottom of the status hierarchy on the ward. They seemed incapable of responding to the program, and gave no indication of a potential to respond, even after several months of repeated attempts by the staff to motivate and train them. Their seeming incapacity to respond, coupled with increasing pressures on the program staff to devote time to the majority of the ward population, left this group poorly integrated into the program most of the time. They were never abandoned by the nursing and program staffs, but transactions with them were for the most part expressive rather than instrumental.[1]

In between the elite and the disoriented were, of course, the majority of the patients on the ward who fit into loosely structured, overlapping cliques, and a number of pair, or buddy, relationships. There was, for example, a group of men who, although their participation in the sheltered workshop was sporadic, usually sat together in the workshop room, watching TV and kibitzing the ongoing activities.

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[1]These confused patients seemed to be suffering from an inability to incorporate and utilize information from the environment. If this be true, then these patients would seem to require a stable, quiet environment in which stimuli are clearly differentiated and consistently presented. One can hypothesize therefore that the busy and at times frenetic atmosphere of the experimental ward was not a suitable environment in which to treat and rehabilitate this type of pathology.

Similarly, a group of women who were only occasionally involved in the program sat in chairs and couches near the television set in the front day-room, passing the time of day with one another. There were several cliques that formed around specific workshop activities; a group of men and women who usually sat at the same table rolling swabs, and a trio in the workshop who worked together on automobile knobs. This latter group was among the most committed of all the patients; they worked nearly every evening under their own supervision, and at ten or eleven would together go to the kitchen for milk and cookies before retiring. There was also a group of men (sometimes joined by one lady) who played cards nearly every evening, even though they did not associate often during the day. Often buddy relationships would form: one of the most intact patients would assume responsibility for taking care of one or two of the more helpless patients. He would dress, feed, and otherwise chaperone the less fortunate patient--sometimes at considerable sacrifice to his own time and energy.

The Ward and the Hospital

The experimental ward was located in the rehabilitation block of wards, although it was under the administrative aegis of the Geriatric Service.[1] In point of fact, however, the experimental ward came to occupy a fairly autonomous position vis-a-vis the clinical staff, being integrated with the hospital primarily through the chief nurse, the nursing area supervisor for rehabilitation wards, and ancillary

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[1]Recently the hospital has placed the experimental ward and two other adjacent wards into a specially created Research Service.

departments such as social service and maintenance. I shall discuss the nature of this integration in greater detail below.

In addition to the core staff (doctors, nurses, and attendants) there are a number of supporting personnel whose importance to the operation of the hospital, as well as to the everyday lives of the patients and ward staff, should not be under-estimated. These are (1) the social workers who staff the Social Service department; (2) the psychologists who are responsible for diagnostic testing, and also engage in therapy with a few selected patients; (3) occupational therapists, and recreational therapists, who operate in separate administrative departments; (4) maintenance and plant department workers (including cooks, and staff personnel who run the farm, stores, snack bars, laundry); (5) clerks, receptionists, and telephone operators; and (6) safety department personnel who are combined policemen and fire marshalls. Thus the hospital is virtually a self-sustaining community, and patients are involved in nearly all of its activities. Just how, to what degree, and with what consequence they are so involved depends primarily on their location in the institution.

The experimental patients were relatively isolated from the activities of the larger system. Which is to say that very few were regularly involved in hospital activities outside of the ward, or unrelated to the ward program. (Only two, for example, had off-ward job assignments.) In fact, the ward program was designed to include most of the activities which a patient might normally engage in. Their relations with the hospital were mediated by the doctor and nursing staff of the ward. We can think of each patient occupying a position in a

social space. This social space can be described in terms of geographic regions (the place where ego goes), and in terms of activities (the things that ego does). From this point of view, the experimental patients operate in a smaller geographic space than do the control patients; but the dimensions and complexity of their activity space are considerably more varied and extensive than that of the controls.

How then was the experimental ward integrated into the larger hospital social system? We can approach this issue in terms of resources and demands: what resources (i.e., people and things) must the ward "import" from the larger system, and what demands are made on the ward by the larger system?

Resources

The fact that the experimental ward was dependent on the institution for a variety of resources had important implications for the evolution of the program. The very tempo of daily existence for ward staff members and patients was, in large part determined by the rhythm of the hospital. Some changes which might have seemed desirable from the point of view of the University staff were impossible, or very difficult, inasmuch as they would have required fundamental changes in the social organization of the hospital. Changes were made in the weekly scheduling of attendants, in order that maximum coverage might be given to the week-days when the activities program was in operation. The hours of the ward nurse were altered to coincide with the program and crosscut the day and afternoon attendant shifts (instead of working from 7 A.M. to 3 P.M., she worked from 8 A.M. to 4:30 P.M.). In other

important respects, however, the daily schedule was unaltered. The attendants were organized into three shifts, with shift changes at 7 A.M., 3:30 P.M. and 11:00 P.M. It was most convenient for the midnight shift to rouse and feed the patients before the 7 A.M. shift change; similarly, supper was served at 4:30 after the day shift had gone off duty, and the afternoon shift attendants would begin getting the patients ready for bed in the early evening, so that the ward would be quiet by the time that the night shift came on at 11. Thus, two of the most important junctures on the patient's day--mealtimes and bedtime--were regulated by considerations quite unrelated to the comfort or treatment of the patients.

In one case, however, the program staff was able to eliminate one resource to the advantage of both patients and staff. With some exceptions, male patients in the hospital are not allowed to keep and use their personal razors. Instead they are shaved on the ward several times a week by a crew of barbers. Each crew consists of several soapers and several shavers--the soapers wander around the ward with cup and brush, freely applying lather to every bristled cheek, followed by the shavers who scrape every lathered cheek. This procedure was efficient, but entirely disruptive to the workshop program, to say nothing of the cumulative effects that it had on a man's sense of efficacy and mastery. This particular link with the larger hospital was severed by the simple expedient of supplying the men on the ward with electric and safety razors, and requiring that they be shaved before coming to work in the shop. This might appear to be a relatively minor change in hospital routine, yet it took three months to accomplish; not

because of active opposition to the plan, but rather because the logistical wheels turned slowly--special safety razors had to be procured so that blades could not be removed without a key, and these razors had to be tied down to the wash basins. Similarly a special wash basin for the women's dorm was procured after some months of negotiation.

These incidents notwithstanding, it is to the credit of both the hospital and ward staffs that stable relationships were maintained even when the experimental program required innovation and departure from the routine. At the operative level of organization (i.e., among those who actually did the work), there was to our way of thinking a remarkable lack of bureaucratic intransigency during the period that the experimental program became part of the hospital. The ward was linked to the larger system through a variety of such service relationships: food was brought in from central kitchens; drugs and medical supplies from the pharmacy; painters, carpenters, locksmiths, plumbers, and telephone repairmen came to the ward to look after the physical plant; patients who were physically ill were sent to the medical-surgical ward, or to an internist for treatment. Occasionally, the Program Director would use the status and/or financial resources of the project to obtain services or materials which were not normally available to hospital wards, as when the University supplied the paint used to redecorate the ward when it was learned that the hospital stocked only cream or light green.

At YSH as in most large state hospitals, there is a bifurcation of authority and power between the business manager and the

clinical director. This is in no small part due to the fact that in such an institution the goals of treatment and custody are dealt with separately: policy and operations in these areas are generally not coordinated, and may at times be in conflict. The process of establishing and maintaining the experimental program required, therefore, that the project director deal simultaneously (or in alternation) with both power centers--for much that was considered "treatment" on the experimental ward required resources and sanctions which were administered by the business manager and his staff. Since the University staff did not aspire to alter fundamentally the social organization of the total institution, most changes on the experimental ward could be effected through the offices of middle- and lower-level hospital personnel. A key functionary in this respect was the nursing area supervisor assigned to the block which contained the experimental ward, for she had ties with both power centers and was in a good position to mediate between them and the ward. Her willing assistance was virtually indispensable to the ultimate success of the project.

Demands

The distinction between resources and demands is somewhat arbitrary in that the categories overlap. Often, institutional protocols associated with obtaining a resource act as constraints on the ward, and in particular on the ward nursing staff. Medical consultation and treatment is a resource provided by the hospital, but in the process of obtaining treatment for a patient there are a number of implicit and explicit rules which the nursing staff must comply with. A request for

consultation must be submitted to the right office, on the proper form, signed by the ward physician. At the appointed time, the patient must be escorted from the ward to the place of treatment, dressed in appropriate clothes, and accompanied by the appropriate medical records. The escort (usually an attendant, sometimes a patient messenger) must either wait for the patient, or return for him when the treatment is completed. Similar protocols exist in any bureaucratic organization--the point here is that they provide the normative context within which the University staff sought to establish an experimental program.

The experimental ward, like all others, was responsible for the containment of its patients, in the sense that the ward staff was obligated to restrain patients from leaving the hospital without permission, and to restrain some patients from leaving the ward unaccompanied. Ward B-6-1 was a locked ward, as are many of the hospital wards. In order to "open" a ward, all the patients on it must have been granted ground cards, which entitle them to leave the ward at certain times of the day, and go at will to those parts of the hospital which are not off-limits. Although many of the patients were issued ground cards, to change the locked ward status of B-6-1 at the beginning of the project year would have required either that the others be given ground cards without evaluation, or that the hospital would have to alter or make an exception to its rules. This was not considered, however, as the program staff felt that keeping the ward closed would force the patients to come into contact with the experimental program; or to put it another way, it would keep some patients from avoiding an initial contact with the activities. In point of fact, after the first

few weeks very few patients had to be encouraged to stay on the ward, although several were resistant to the whole idea, and regularly used their ground privileges to avoid the activities program.

There were a number of additional institutional rules which the ward staff were constrained to enforce, pertaining to phone calls (patients were not allowed to call out, or receive calls), mail (letters out were read by one of the attendants or nurses), smoking, relations between men and women, and so forth.[1]

Among the most important demands which the hospital makes on the ward is the demand for information--paper work. There are surprisingly few rules about the treatment of a patient's pathological condition, but there is a continuous flow of reports from the nurse or supervisory attendant to the executive offices about the status of patients, staff and plant. This particular form of integrating the ward with the larger system was not altered by the introduction of the experimental program--accident reports, census reports, the nurse's day book, drug inventories, oral reports to daily staff meetings, etc., were continued throughout the project year.

A third type of institutional constraint was the demand that high standards of cleanliness and order be maintained on the ward. In most custodially oriented wards, a portion of the attendant's working day is taken up with cleaning, polishing and sweeping--either doing the work himself or supervising patients at work. The introduction of the

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[1]The hospital recently abandoned mail censorship and installed telephone booths on the grounds for patients to use.

experimental program on the ward interfered with this routine, both because it made new demands on attendant time and energy, and because the program created dirt and disorder which did not exist before. Patients were engrossed in the sheltered workshop and not so readily available for routine household chores; traffic in the halls and day-rooms increased radically. There was a general reduction in the regimentation which, on a custodial ward, facilitates the maintenance of the physical plant as it contributes to the degeneration of the patients.

Elsewhere we discuss the impact of the program on the social organization of the ward. Here we are interested in the integration of the ward with the larger system, and the point is that there was a conflict between the demands of the experimental intervention and the hospital etiquette about cleanliness and order. This conflict gave rise to considerable anxiety, especially during the early months of the project, when nursing personnel on the ward were required to adjust to a radically new atmosphere and routine. One elderly female attendant with many years seniority at the hospital, said "They've taken away my second home."

Several months after the project began the hospital maintenance department announced that the ward would no longer have the services of a housekeeping crew which, until that time, had been working on the ward several times a week at mopping, cleaning and polishing walls and floors. At first this was interpreted, by the nursing and University staff as well, as a deliberate attempt to undermine the experiment. Later it was determined that this was an administrative decision which

applied to all of the wards, taken in the interest of economy. The fact that the change was made without adequate explanation to the ward staff caused considerable tension between ward and service personnel. The actual consequences of the decision with regard to ward maintenance were not so severe as the temporary anxiety and hostility which were initially stirred up. The problem was resolved by (1) the nursing staff tolerating a greater degree of disorder than they had been accustomed to, (2) a weekly clean-up in which the patients took primary responsibility for cleaning up the ward, (3) adjustment of the workshop schedule so that daily maintenance functions would not be interefered with.

One goal of the program was to establish direct as well as indirect links between the patient and the community outside the hospital. We attempted to make it possible for the patient to experience directly persons and institutions in the normal world. Furthermore, it was hoped that some activities could be structured so that even though they did not involve the patient in direct contact with the community, they would nonetheless contribute to his engagement with the outside world rather than exacerbate his isolation and estrangement from it. Thus the program was in part designed with the intention of (1) developing and maintaining the patient's orientation to the outside world, i.e., his sense of identity and place in the community; (2) mitigating the sense of isolation and alienation which is an inevitable consequence of incarceration; (3) providing the opportunities to practice the skills associated with successful role enactment in a normal setting; in order to (4) maximize the patient's sense of efficacy.

A variety of institutional arrangements were established with the intention of maximizing these goals. Perhaps most important were the sheltered workshop and craft programs which provided indirect but meaningful links to the outside community in the following ways: the work itself, both in terms of standards for quality and in amount of production, was monitored by the demands of outside agencies--the University Hospital, an automobile parts manufacturer, stores in Ann Arbor and Lansing, etc. Precisely because the activity was responsive to the needs of the outside world, the patients seemed to develop a sense of obligation and commitment to it. One day, for example, word came from the manufacturer that a certain number of auto dash knobs and chrome letters were needed at the Dearborn plant, "or else the assembly line would be forced to shut down." The patients worked until 10 P.M., met the quota, and could talk about little else for the next few days. One example of a crisis successfully dealt with does not make the case for the existence of shared understandings about the meaning and utility of an activity--but it supports our general impression that most patients knew what they were doing, knew how their products were being utilized, and were able to judge their own performance in those terms.[1]

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[1]We are not arguing that the workshop replicates a factory setting, or that the program, in toto, replicates the normal world; only that it is sufficiently similar as to be meaningful to the patient participant. There were, of course, limits to this meaning, determined by the fact that no matter how you sweeten it, it's still a mental hospital. One patient expresses it thus: "The workshop is O.K., but no real shop could get away with the low wages you people pay."

Increased direct contact with outsiders was one inevitable by-product of the experimental program. Students from the University, mental health practitioners from other institutions, and visitors from town were attracted to the ward and became a frequent sight. Our impression is that the patients did not resent the fact that they were occasionally on display; on the contrary, many seemed to enjoy the opportunity to explain their work and brag about their productivity.

Attempts were made to integrate volunteers from the community into the ward program as friendly visitors (one volunteer would regularly visit with a given patient) and as workshop aides. With regard to the latter, this integration was only moderately successful. As a rule, they came to the ward but once a week, and regular staff persons were not able to devote very much time to their training. The result was that they were never quite in tune with the ward program many features of which were rapidly changing from day to day, so there was a tendency for these women to become more involved with a particular activity, and not so involved with the patients.[1]

In ways that did not involve working directly with the patients these volunteers proved important to the experimental program. They were available and willing to perform many integrative functions--transporting completed products into town, picking up materials at local stores and supply houses, looking for outlets for some of the craft

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[1]There was one notable exception which demonstrates some of the possibilities for utilizing volunteer participation in such a program: the wife of a divinity student who was in training at the hospital worked on the ward every day during the summer. In that time she won the confidence and affection of the patients, and made a substantial contribution to the program.

items, and in general acting as goodwill ambassadors of the program in the community.

A larger number of friendly visitors would have been desirable, for these supportive relationships have the potential for relating the patient directly to the community by affective as well as instrumental ties. The friendly visitor often develops close relations with his patient, sees him regularly on the ward, takes him out of the hospital for shopping and dinner, and provides for him somewhat like a surrogate kinsman. This kind of relation is not viable for all patients, nor would all community volunteers be appropriate as visitors --but in those cases where a successful match can be made, it is a fruitful device.

Efforts were made to get patients out of the hospital and into town as often as possible. These efforts were limited by the lack of transportation and staff, but small groups regularly went shopping, to ball games, garden club meetings, carnivals, etc.

Another important agent, linking the patient to the outside world is the hospital social worker. Working with the physician and the ward staff, she was responsible for helping the patient maintain contact with his family, and for mediating between the patient and such outside agencies as social security, welfare agencies and employers.

From the point of view of the ward as a social system--i.e., as an object of analysis--it is important to recognize that this system was integrated not only with the hospital of which it was a part, but also maintained important ties with organizations in the outside

community. This means that a variety of resources, people and things, were available to the patients and staff of the experimental ward, which were not generally available to other hospital wards. The hospital does have a fairly extensive Community Relations program, for example, in which many volunteers are utilized, but the efforts of these volunteers are dispersed throughout the hospital so that no single ward or group of patients has more than a superficial contact with outsiders. Furthermore, on the control wards these volunteers must supply their own resources and develop their own activities which are seldom integrated with the ongoing life of the ward. On the experimental ward volunteers were able to fit into, and supplement, an existing program of activities which were part of the effective life space of the patients and staff.

Summary of Differences between the Treatments

The reader may find it useful to have a brief summary of the major social and psychological variables which differentiate the experimental from the control treatments.

(1) Physical atmosphere: The experimental ward had greater variety in color and ornamentation than did most of the control wards.

(2) Heterogeneity of the patient group: The patient population of the experimental ward was more heterogeneous than the patient groups on the control wards. The experimental group contained both men and women, while control wards are segregated by sex; and in terms of diagnosis and symptom, the experimental ward was less homogeneous than were the control wards.

(3) Level of activity: Quite apart from the content of the intervention, there was simply more activity on the experimental ward than on the control wards.

(4) Staff-patient ratios: Similarly, apart from what they did to and for the patients, there were more staff personnel (including University as well as hospital staff members) on the experimental ward than there were on the control wards. This included a full-time registered nurse, and a half-time ward physician.

(5) Staff-patient interaction; surveillance and permissiveness: There was more interaction between staff members and patients on the experimental ward than on the control ward. This means that the experimental patients were under more constant surveillance. It is also my impression that the experimental ward staff was more tolerant of deviant behavior among their patients than were the control staffs.

(6) The activity program and instrumental activity: Patients on the experimental ward were given the opportunity, and encouraged, to engage in meaningful instrumental activity. It was meaningful in four ways: first, the activity was meaningful in that it produced immediate rewards in the form of wages. Second, there were less tangible rewards, in so far as the work itself was pleasurable, engendered supportive relations among patients, and between patients and staff members. Third, the activities were designed to be as relevant as possible to the patient's psychological life space; i.e., most of the activities had meaning for the patient in terms of his past experience. Finally, his participation in the sheltered workshop and other aspects of the Activity Program placed him in a relationship with the outside community.

(7) Contacts outside the ward: While many of the control patients had more intercourse with extra-ward units of the hospital, the experimental patients had more contact with the outside community, both because outsiders had business on the ward in conjunction with the workshop, and because the experimental patients were more often taken out of the hospital on planned excursions.

The Subjects

Criteria for Selection--Rationale and Procedure

Patients were selected for this study so as to meet the following criteria:

(1) Fifty-five years of age, or older.

(2) No psychiatric admissions more than four years prior to the beginning of the study.

(3) At least minimal adjustment prior to old age; i.e., no evidence of psychiatric illness prior to the current one.

(4) At least minimal ability to communicate with others; i.e., not so "out of contact" that no data could be obtained from the patient.

(5) Ambulatory, or capable of becoming ambulatory within a short period of time after admission to the project.

With the exception of Criterion 1 above, all these requirements were established before the subjects were selected. Originally we had intended to use age 60 as an arbitrary lower limit to old age, it being our intention to select 180 (90 male and 90 female) patients who

would be assigned at random in equal numbers to the experimental and control groups. Prior to the study it was determined that approximately 25 per cent of the total hospital census was over age 60, and that approximately 25 per cent of all new admissions were in the geriatric category. Unfortunately, after we began the search for a pool of eligible patients from which to select the experimental sample, we found that the geriatric patients already in the hospital had, for the most part, been there longer than four years; and, an insufficient number of eligible new admissions had remained in the hospital long enough to participate in the study. This was due to several recent changes in admission and treatment policy of which we had not been aware. In recent years the pressure for bed-space coupled with the increased availability of nursing homes has resulted in fewer placements of the geriatric mentally ill in the state hospital system. There has also been a pronounced effort to rehabilitate and discharge newly admitted patients, older as well as younger, shortly after their first admission even if such placements were to nursing homes offering no better custodial care than that provided by the hospital itself. This scarcity of patients made a revision of our plans necessary, to increase the pool of eligible patients without doing violence to the study design. We therefore lowered the age criterion to 55, and sought to expedite the admission of eligible patients to the hospital from other sources. Patients in several hospitals--Detroit Receiving, Pontiac and Northville State Hospitals--and the waiting lists of the courts in the six counties which Ypsilanti State Hospital serves were surveyed for patients fitting the study criteria. As such patients were located

(mostly from Detroit Receiving), transfers and/or admissions to Ypsilanti State Hospital were arranged. In addition, the total number of patients to be included in the study was reduced from 180 to 140, 80 experimental patients and 60 controls.

As for the other criteria: (2) we were interested in people whose problems could be associated with the aging process. (3) Here, again, we wanted to exclude those who may have been long-term schizophrenics, alcoholics, or sociopathic personalities. If an individual had never made a satisfactory occupational adjustment, or if he had been a ward of the state for many years, or indigent since his teens, we felt justified in assuming that his present condition was not age-related. This requirement was applied very liberally, and only those persons who were clearly beyond the pale were excluded. Criterion 4 was established so that we could obtain some data directly from the patient, and (5) was the minimal requirement deemed necessary by the program staff for the patient to participate in the activities program.[1]

The pre-selection evaluation of patients included the following:

(1) Examination of hospital records and social history of potential subjects.

(2) A screening interview by a member of the research team to determine testability. This interview was structured by utilizing the Goldfarb Mental Status Examination, but the determining criterion was whether or not the subject was able to attend to the interviewer's questions.

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[1]Some patients were, in fact, later transferred from the experimental ward because their physical condition required medical and nursing care for which facilities were not available on the ward.

(3) Medical histories were surveyed by the ward physician, and in several cases he conducted physical examinations in order to disquality patients who were suffering from advanced Alzheimer's Disease, Pick's Disease, or central nervous system syphilis. It was felt that enough is known about the effects of these conditions to support the assumption that these patients would not be able to respond to environmental therapies.

More than 600 patients were so screened, out of which a total of 193 (89 male and 104 female) patients were selected for the study.[1] Those patients who were already residents of the hospital at the time of selection were assigned at random (using a table of random numbers) to the experimental or control group in a ratio of eight experimental to every six control patients. Those who were not resident in the hospital were brought to the admissions wards where they remained for about two weeks before being assigned at random to control and experimental treatments. Those control subjects who were already patients at the hospital stayed on their ward, while those who were assigned to the experimental group were transferred in small groups to ward B-6-1.[2]

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[1]Note that the effective samples for analysis are smaller, due to sample attrition. Up to six months before the end of the project year, patients who died, were transferred, or were discharged, were replaced.

[2]In another study which is now in progress (with chronic, long-term patients) control patients were transferred to a different ward to control for the impact of transfer itself. This was not done in the case we are now describing.

Sample Attrition

Of the 193 patients who were ever assigned to the study, death, physical illness, or discharge prevented 19 experimental and 11 control patients from being exposed to their assigned treatments (see Table 2). Note that there is a disproportionately large number of experimental females in the attrition group; in fact, there are also more control females who never arrived on their assigned wards. This may be due to several factors, although I am not in a position to give any definitive explanation: (1) It is likely that females are more easily placed in nonpsychiatric institutions than are male patients, so that some of the women who were selected for the study at Detroit Receiving Hospital were placed in nursing or convalescent homes between the time that they were selected and the time that they were due to be transferred to Ypsilanti State Hospital. This would not explain, however, the large number of <u>experimental</u> females who never arrived on ward B-6-1. It is entirely possible that (2) the notice to transfer female patients who were already at the hospital to the experimental ward, was enough to focus the attention of staff members on these patients who were then deemed sufficiently recovered for out-placement. It is also the case that some attendants were reluctant to lose patients of whom they had become fond, or who were functionally important to their ward. In these cases it would not have been too difficult for ward staffs to find some way of blocking the transfer--either because the patient was "too sick to move," or "due to be discharged any day now."

Once the patients arrived on their assigned wards, the attrition rate seemed to be distributed equally over the four groups--during

TABLE 2

DISPOSITION OF 193 PATIENTS
SELECTED FOR THE STUDY

Disposition	Experimental			Control			Total
	Male	Female	Total	Male	Female	Total	
Assigned to study	49	61	110	40	43	83	193
Attrition	4	15	19	4	7	11	30
Per cent	(8.2)	(24.6)	(17.3)	(10)	(16.3)	(13.3)	
Arrived on assigned ward	45	46	91	36	36	72	163
Attrition	6	8	14	7	6	13	27
Per cent	(13.3)	(17.4)	(15.4)	(19.4)	(16.7)	(18.0)	
Stayed six months	39	38	77	29	30	59	136
Attrition	2	0	2	5	2	7	9
Per cent	(5.1)	(0)	(2.6)	(17.2)	(6.7)	(11.9)	
Sufficient data available for analysis	37	38	75	24	28	52	127

the first six months of a patient's tenure on his assigned ward the probability that he would leave the study sample is not related to his sex or his membership in the experimental or control groups. Recall that the intended ratio was 80 experimental and 60 control patients. Actually, 77 experimentals and 59 controls arrived on their assigned wards and remained six months or more. Of this group, seven additional control patients and two experimental patients had to be eliminated because physical illness or extended leaves of absence from the hospital precluded all or most of the planned testing and data collection.

We are here concerned with two groups of patients within the remaining 127 experimental and control subjects. The first will be designated as the "post-test sample" and includes 75 experimental and 52 control subjects who received their assigned treatment for at least six months, and for whom final test data were available. The second group, that which is utilized for the present analysis, contains 69 experimental and 49 control patients for whom both pre- and post-test data are available. I will refer to it as the longitudinal sample.

With some reservations, to be discussed below, the success of the random assignment to experimental and control groups is documented by a comparison of the two on several descriptive variables. The groups are comparable with respect to the distribution of males and females (see Table 3), age (Table 4), length of hospitalization (Table 5), time exposed to treatment (Table 6), mental status (Table 7), and diagnosis (Table 8). I say comparable, rather than equivalent, because in two cases--diagnosis and length of hospitalization--there are discrepancies large enough to warrant further discussion.

TABLE 3

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS BY SEX, POST-TEST AND LONGITUDINAL SAMPLES

Sex	Experimental		Control		Total
	Number	Per cent	Number	Per cent	
Post-test Sample					
Male	37	49	24	46	61
Female	38	51	28	54	66
Total	75	100	52	100	127
Longitudinal Sample					
Male	32	46	26	53	58
Female	37	54	23	47	60
Total	69	100	49	100	118

TABLE 4

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS BY SEX AND AGE, POST-TEST AND LONGITUDINAL SAMPLES

Sex	Experimental		Control	
	Age		Age	
	Mean	Standard deviation	Mean	Standard deviation
	Post-test Sample			
Male	68.08	7.51	69.54	7.63
Female	70.87	8.11	69.69	7.59
Total	69.49	7.81	69.61	7.61
	Longitudinal Sample			
Male	67.75	7.51	69.88	7.98
Female	70.38	7.74	70.65	8.47
Total	69.16	7.75	70.24	8.23

TABLE 5

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS BY SEX AND LENGTH OF HOSPITALIZATION, POST-TEST AND LONGITUDINAL SAMPLES

Sex	Experimental		Control	
	Months in hospital		Months in hospital	
	Mean	Standard deviation	Mean	Standard deviation
Post-test Sample				
Male	18.05	17.37	15.13	14.87
Female	9.76	13.78	13.61	14.53
Total	13.91	15.58	14.31	14.71
Longitudinal Sample				
Male	16.28	16.85	13.96	14.87
Female	10.57	13.90	13.30	14.96
Total	13.22	15.60	13.65	14.92

TABLE 6

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS BY SEX AND EXPOSURE TO TREATMENT, POST-TEST AND LONGITUDINAL SAMPLES

Sex	Experimental		Control	
	Months in Study		Months in Study	
	Mean	Standard deviation	Mean	Standard deviation
	Post-test Sample			
Male	10.76	1.70	10.79	1.87
Female	10.00	1.93	10.82	1.60
Total	10.38	1.81	10.80	1.74
	Longitudinal Sample			
Male	10.97	1.63	10.85	1.59
Female	10.03	1.92	11.17	1.27
Total	10.46	1.85	11.00	1.46

TABLE 7

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS BY SEX AND MENTAL STATUS, POST-TEST AND LONGITUDINAL SAMPLES[a]

Sex	Experimental		Control	
	Mental Status[b]		Mental Status[b]	
	Mean	Standard deviation	Mean	Standard deviation
	Post-test Sample			
Male	9.00	3.30	8.75	3.32
Female	7.95	3.46	7.86	3.67
Total	8.48	3.38	8.30	3.49
	Longitudinal Sample			
Male	9.03	3.18	8.76	3.67
Female	8.33	3.34	7.52	3.65
Total	8.66	3.28	8.16	3.71

[a]Mental status as measured by Goldfarb's Mental Status Questionnaire.

[b]Maximum possible score is 13, minimum is zero.

TABLE 8

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS BY SEX AND DIAGNOSIS, POST-TEST AND LONGITUDINAL SAMPLES

Sex	Experimental				Control			
	Diagnosis				Diagnosis			
	Org.	Aff.	Schiz	Other	Org.	Aff.	Schiz	Other
Post-test Sample								
Male								
Number	28	4	4	1	16	3	3	2
Per cent	75.7	10.8	10.8	2.7	66.7	12.5	12.5	8.3
Female								
Number	24	3	8	3	23	1	3	1
Per cent	63.2	7.9	21.0	7.9	82.1	3.6	10.7	3.6
Total								
Number	52	7	12	4	39	4	6	3
Per cent	67.6	9.1	15.6	5.2	74.1	7.6	11.4	5.7
Longitudinal Sample								
Male								
Number	25	2	4	1	18	3	3	2
Per cent	78.1	6.3	12.5	3.1	69.2	11.5	11.5	7.7
Female								
Number	22	3	9	3	20	1	2	0
Per cent	59.5	8.1	24.3	8.1	87.0	4.3	8.7	0
Total								
Number	47	5	13	4	38	4	5	2
Per cent	68.1	7.2	18.8	5.8	77.6	8.2	10.2	4.1

The groups are roughly comparable with respect to diagnosis in as much as in both groups a majority of the patients are diagnosed as suffering from some organically based pathology associated with aging (usually chronic brain syndrome, associated with cerebral arteriosclerosis). Note, however, that especially among the females, there are differences between experimental and control patients with respect to the distribution of schizophrenics. These differences may reflect differential attrition rates, and they may reflect a bias in the assignment procedure, or some combination of both.[1] Note that the female experimentals had the highest attrition rate, most of which is accounted for by patients who never arrived on the experimental ward (as opposed to those who arrived, but stayed less than six months). I cannot with any certainty account for this discrepancy. It may be related to the fact that a preponderance of experimental females never arrived on their assigned ward, which may in turn have something to do with the attitude of some hospital personnel towards the project, especially during the early stages of the project year.

There is also a discrepancy between experimental and control females with respect to length of hospitalization, the experimental females being hospitalized for a somewhat shorter period of time than other categories (see Table 5). We cannot say that this difference is statistically significant in view of the wide range for this variable.

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[1]Chi Square for the difference between experimental females and control females is 3.264, 2 d.f., $.10 < p < .20$; i.e., this discrepancy approaches statistical significance. All other differences are not statistically significant.

Some patients were admitted to the hospital during the same month that they were transferred to their assigned wards; others had been hospitalized for the maximum 48 months prior to the beginning of the project. Thus, the standard deviation is in some cases larger than the mean, and the difference of approximately 4 points in mean for months in hospital could not be significant.

These discrepancies do however suggest that we cannot blindly assume randomization of control and experimental groups in the analysis of data, and will have to control for diagnosis and sex. Unfortunately, the very same tactical problem which gives rise to doubts about the randomization--small total number of cases--will give rise to difficulties in applying controls to the analysis. If the gross comparison of experimental and control groups on outcome variables show small differences, then we will have to be sensitive to the possibility that these differences are attributable to sampling error rather than the experimental intervention.

Characteristics of the Sample

We can further examine the data in Tables 2 through 7 in order to describe the sample and place it in some meaningful population of older people. I will then supplement this data with other background information about the persons in the longitudinal sample, for whom we have the most complete information.

In both samples (post-test and longitudinal) the patients average about 69 years of age. Female patients are slightly older than the male patients, but this difference is not statistically significant

(see Table 4). The range and deviation among the patients with regard to length of hospitalization prior to the project year are so great that it is difficult to present any meaningful summary statistic--the average length of hospitalization is about fourteen months, but the range is from zero to forty-eight (Table 5). The average patient spent 10.75 months in the study, i.e., receiving his assigned treatment. The minimum, of course, was set at six months and the maximum possible time in the study was twelve months (Table 6).

It was our intention in selecting subjects for the study to represent a wide range in degree of orientation for person, time, and place. Only those prospective subjects who seemed quite incapable of responding to interview type questions were rejected on this criterion. In view of the distribution of subjects' scores on the Mental Status Questionnaire it would seem as if that goal were achieved (Table 7). The range is from 0 to a maximum of 13, with patients evenly distributed along the entire range. The mean is 8.5 (standard deviation = 3.48) which indicates moderate confusion.

The most common diagnosis among geriatric patients is chronic brain syndrome (Table 8). This means that, having ruled out schizophrenia, and such affective disorders as manic-depressive psychosis or involutional psychosis, the examining psychiatrist assumes that some sort of organic damage to the central nervous system exists. Approximately 72 per cent of the longitudinal sample was diagnosed as organic, with about 8 per cent diagnosed as suffering from an affective disorder, about 15 per cent schizophrenic, and 5 per cent miscellaneous other categories (e.g., psychoneurosis, or depressive reaction).

Since the sample was selected to eliminate patients who showed evidence of psychiatric illness prior to old age, it is to be expected that about half of the sample (50.5 per cent) were admitted to a mental hospital for the first time between 1958 and 1960, and 42.1 per cent in 1961 and 1962. Only 7.5 per cent of the patients had any hospitalization prior to 1958 and in these cases the illnesses were continuous with the current hospitalization. For most of the patients (84.8 per cent) the current admission was the first admission to a psychiatric institution, and the medical and social histories on record at the hospital indicate that for 42.2 per cent there is no evidence of psychological disturbance prior to age 55. Of the remaining 57.8 per cent, most have a history of some sort of deviant symptomatology which may be related to their illness in old age, but is not indicative of psychosis prior to age 55. Thirty-three per cent were reported to have some earlier record of alcoholism or "asocial" behavior, 5.5 per cent were said to have depressive episodes, 6.4 per cent were either confused or erratic in their behavior prior to age 55, and approximately 13 per cent were reported to be seclusive, withdrawn, or suspicious--symptoms which may be indicative of schizophrenia, but which were never so severe as to demand psychiatric treatment.

The patients in the study were white (80 per cent), Protestant (63 per cent), American-born (67 per cent), and most were residents of an urban center. Among the men, 85 per cent had been to school for less than nine years. Sixty-three per cent had a relatively stable occupational history in an unskilled (55 per cent) or semiskilled (34 per cent) job. More women than men went beyond the ninth grade in

school (43 per cent) and had either no employment history (18 per cent) or had worked less than a total of ten years (38 per cent) in their lives.

Among the men, 22 per cent had never married while only 11 per cent of the women had remained single. One out of four patients (both male and female) was either separated or divorced, while 43 per cent of the women and 28 per cent of the men were widowed. Less than 25 per cent were married at the time of their selection to the study sample.

More than half (53 per cent) of the study patients had no children. Of those who did have children, most of them lived within visiting distance (a half-day trip). A substantial proportion of the patients had living siblings at the time of the study (74.3 per cent), but only slightly more than one-third of these sibs lived near enough to visit the patient without travelling more than one day.

About 42 per cent of the patients lived in a home which they or their family owned, another 20 per cent lived in a rented home or apartment, but more of the women (27 per cent) were home-owners or renters than the men (18 per cent). Of the men, one-third were living in a boarding house or hotel room at the time they were hospitalized. Seventeen per cent of the patients came to the hospital from a nursing or convalescent home residence. In fact, at the time of admission more than half (56 per cent) of the patients lived alone, in an institution, or with a nonrelative. Only one in four lived with a spouse, and 17 per cent with some other relative.

Seven out of ten patients were church members, and almost all of them reported attending services at least once a month. As might be

expected, a much smaller proportion of the patients report participation in church activities other than services (29 per cent), and only 38 belonged to clubs or associations other than church affiliated groups.

To put some of this data in perspective, note that in Michigan 38.6 per cent of persons over 55 are never-married, divorced, separated, or widowed (U.S. Bureau of the Census, 1962). Our sample contained twice that proportion (77 per cent). In the United States population of persons over age 60, 15.8 per cent live alone, while in our study sample there were almost three times as many persons (44 per cent) living alone prior to hospitalization. There is reason to believe, therefore, that our sample was relatively more isolated and lower in socio-economic status, than the general population of persons in this age range. Whether this is a cause or a consequence of mental illness cannot be determined, but it is clear that many of these people had few alternatives to hospitalization when they became the victims of psychiatric disorder. Seventy-five per cent of the study patients were first seen in a public hospital (most of them at Detroit's Receiving Hospital). A few were first seen at Wayne County Hospital which serves the population of Greater Detroit. About 20 per cent first entered a private general hospital outside of Wayne County, and a few were first seen at a private psychiatric hospital (Mercywood), before being transferred to the state hospital.

Design and Measures

In Chapter II the early milieu theories were criticized for failing to account for the person component of the behavioral situation.

If this criticism is warranted, then either post-treatment adjustment will be found to be a function of the pre-treatment condition of the patient, independent of whether he was assigned to experimental or control group, or there will be interaction effects between initial personal organization and response to the experimental program. The approach of Cumming and Cumming (1962) was also discussed. They do develop a theory of pathology and a derivative theory of milieu treatment, and one of their major hypotheses is that there will be positive change in the ego organization of mental patients who experience a therapeutic milieu, and relatively little change in the ego organization of patients who experience routine custodial care.

Therefore, within the limitations of the data, the present analysis will examine (1) the differential impact of person and treatment variables on the behavioral adjustment of the patient, and (2) the extent to which personal organization itself undergoes change in response to the different treatment conditions. With regard to (1), we are asking which type of variable best explains the variance in adjustment, as measured by direct observation and attendants' ratings of the patients behavior: variables relevant to subjects' personality before the study began, or the treatment variable. The question itself suggests a two-way analysis of variance design in which the dependent variable is adjustment, one predictor variable is type of treatment and the other is degree of personal organization. The milieu therapy hypothesis can be represented schematically, as in Figure 2. Similarly, an extreme statement of the position taken in Chapter II is represented in Figure 3.

Figure 2. Treatment Effect

Categories of personal organization:		Experimental	Control
	High	Adjustment--high	Adjustment--low
	Low	Adjustment--high	Adjustment--low

Figure 3. Personality Effect

Categories of personal organization:		Experimental	Control
	High	Adjustment--high	Adjustment--high
	Low	Adjustment--low	Adjustment--low

It is more than likely that there will be some kind of combined or interaction effect expressed in the relations between personal organization, treatment, and adjustment. It is possible, for example, that the patient's personal organization prior to treatment conditions the relationship between treatment and outcomes (adjustment): which is to say that the person variables determine who among the experimental patients will respond to the therapeutic intervention with adjustive behavior. This is represented below:

Figure 4. Conditioning Effect

Categories of personal organization:		Experimental	Control
	High	Adjustment--high	Adjustment--low
	Low	Adjustment--low	Adjustment--low

If, however, both personal organization and treatment are causally and directly related to adjustment we would expect to find the following pattern:

Figure 5. Combined Effect

Categories of personal organization:		Experimental	Control
	High	Adjustment--highest	Adjustment--high
	Low	Adjustment--low	Adjustment--lowest

This same pattern might also be found if there were interaction between personal organization and response to treatment, and a direct relationship between personal organization and adjustment.

Problem (2) above is addressed to the issue of whether or not personal organization itself is altered by the milieu treatment program. Utilizing a before and after design, I will examine measures of personal organization directly, to determine whether or not there are changes which are characteristic of the experimental patients but not the controls.

Measures

This is an ex post facto study in so far as the research procedures were not, from the very beginning, designed to accommodate the theoretical considerations described above. There are limitations in the data which restrict the extent to which the theory can be made operational. It is not possible, for example, to examine many aspects

of personal organization which might be relevant to the way in which a patient responds to the experimental program.

Independent Variables

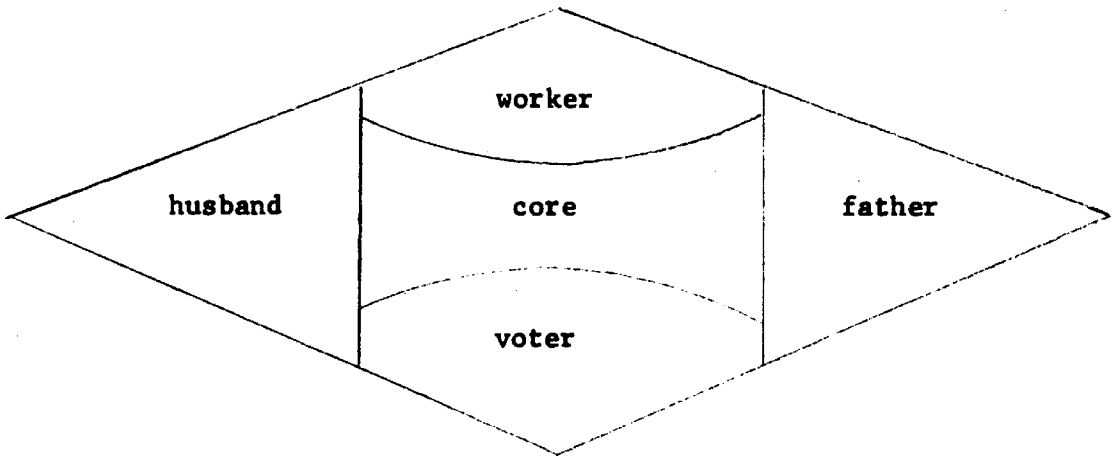
In addition to the different treatment conditions (experimental and control), there are eight independent variables. They are mental status, and seven variables based on a semantic differential measure of self concept: self esteem, consistency of self concept, health-energy, evaluation, morale, wisdom, and popularity. Each of these variables is described below.

A modification of the Goldfarb Mental Status Questionnaire was administered to each subject at the time he was screened for admission to the project, and again at the end of the project year. The test is a structured interview consisting of ten pre-coded questions very similar in form to those asked in the course of a typical psychiatric examination to determine orientation for time, place and person. It has been found to be in strong agreement with independent clinical evaluation and to differentiate well among aged patients at different levels of mental status (Kahn, et al., 1960).

Following D. R. Miller, I view the self as "an object of awareness. It is an object that identifies the person to himself and to those who know him, and it has continuity over time" (n.d.). As such, the self can be conceptualized as a set of attitudes whose empirical referent is the individual's own status and behavior. Now, as L. S. Cottrell, Jr. (1942) points out, there is no single invariate self--a person's conception of self varies in some degree with the social space

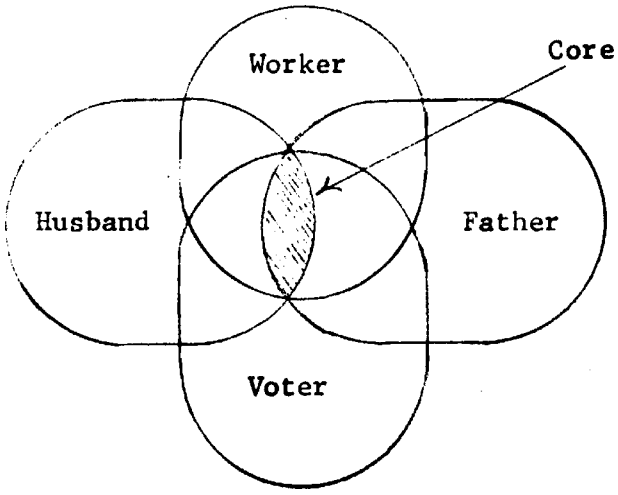
which he occupies at any given time. One could, however, conceive of a core identity, a subset of attitudes which remains relatively stable regardless of environmental conditions, and which functions to integrate a whole repertoire of situation specific selfs.

Figure 6. Core identity as integrating set.



Another conceptualization of core identity would involve the interrelationships among attitudinal subsets, with core-identity representing the overlap or intersection of these subsets:

Figure 7. Core identity as intersection of other sets.



If each person possesses a multiple repertoire of identities, to which self are the test responses germane? Or, can we assume that because the concept was unspecified the subject has responded in terms of his core-identity? In spite of the fact that every attempt was made to present the test similarly to all subjects, there are no a priori grounds for assuming that all subjects are describing the same self-dimension. Nonetheless, the test-taking procedure can be viewed as an exercise in self-presentation, quite apart from the specific, perhaps idiosyncratic, response set which each subject brings with him.

The semantic differential test for evaluating certain aspects of the subject's self-concept, developed by Calhoun and Gottesman (1962) for use in this study, was administered at the beginning and end of the project year.[1] The form consisted of 25 five-point continua between bipolar adjective pairs (e.g., "good--bad"). Some of the adjective pairs were selected from Osgood's list as relevant to the self-concept of aging persons, and some were selected by the investigators on the basis of their frequent occurrence in the literature on aging (Osgood, et al., 1957). All of the items were pretested with hospitalized geriatric patients for comprehensibility.[2] When the adjective pairs were presented in very large print individually on 5" x 8" cards and supplemented by verbal presentation, nearly all subjects

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[1] If a patient was discharged before the end of the project-year, every effort was made to administer the test prior to his leaving the hospital.

[2] It later proved necessary, however, to eliminate one of the twenty-five items because a large number of the study subjects did not seem to understand it. This item was "narrowminded--broadminded." As used in the analysis, the test consisted of twenty-four items.

were testable. The patients were asked to rate four concepts on each of the 25 continua: "myself," "my ideal self," "young people" and "old people," but only the self description is utilized in the present study.

The data derived from the administration of the semantic measure of self-concept were factor analyzed according to the following procedures:

(1) Since the assumption of interval level of measurement and multivariate linearity did not seem warranted, a sequential dependency analysis was undertaken. This analytic procedure, developed by Dr. James Lingoes (1963), will transform nonlinear, nonmetric data in order to maximize the potential linear relationship of each variable to one or more other variables. Each variable is, in a sense recoded in terms of its relationship with one or more different variables in the same matrix, with which it is highly correlated. If, for example, the regression of X on Y is expressed in a curvilinear function of relationship, one can ask "What must I do to the scores of Y in order to yield a linear regression of X on Y?" Lingoes' program thus generates one or more sets of category weights for each variable, each set representing a different possible coding system for the variable in question.

(2) The program then generates a product-moment correlation matrix composed of all possible variates, where each variate represents a unique coding system for a given variable. This correlation matrix forms the basis for a conventional U. of M. Principle Axes Factor Analysis with varimax rotation.

(3) In the case of the semantic measure which we used, the resulting factor structure was difficult to interpret because a large number of factors were generated with two or three variables assigned to a factor. By making one further operation on the data it was possible to generate a factor structure which was at once sensible and explained a significant proportion of test variance. For every test variable the possible coding systems (category weights) were examined (in some cases there was only one coding system produced by SDA; while for some variables as many as four variates were produced). A coding system was selected for each variable which was then rescored using the category weights appropriate to that coding system.[1]

(4) The recoded data were then submitted to a conventional University of Michigan Principle Axis Factor Analysis with varimax rotation.[2]

This procedure yields five factors which are described in Table 9: (1) health and energy, (2) self-evaluation, (3) morale, (4) popularity, and (5) wisdom. These factors together account for 40.5 per cent of the total test variance.

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[1]For any given variable, the preferred coding system was selected according to the following criteria: (a) which coding system yields the highest factor loadings, (b) which coding system requires the least alteration of original raw scores in order to achieve linearity, (c) does the coding system make sense, i.e., is it theoretically meaningful to code variable X in terms of its relationship to variable Y.

[2]These manipulations on the data were solely for the purpose of determining a factor structure; that is, for reducing the dimensions of the test from twenty-five to five. The data were not recoded when factor scores were computed for the analysis.

TABLE 9

SEMANTIC SELF CONCEPT FACTOR STRUCTURE

Item	Factor Loading
Health-energy	
Young-Old	.42
Energetic-Tired	.70
Healthy-Sick	.77
Active-Passive	.58
Useful-Worthless	.62
Strong-Weak	.75
Evaluation	
Pleasant-Unpleasant	.46
Kind-Cruel	.48
Friendly-Unfriendly	.51
Careful-Careless	.51
Religious-Not religious	.41
Quiet-Loud	.38
Honest-Dishonest	.48
Good-Bad	.51
Morale	
Happy-Sad	.64
Not worried-Worried	.72
Relaxed-Nervous	.52
Wisdom	
Wise-Foolish	.55
Quick-Slow	.51
Popularity	
Wanted-Unwanted	.63
Popular-Unpopular	.56

In this analysis therefore we will deal with three types of measures based on the semantic test. The first is a measure of self-esteem based on the elevation of each subject's response profile, as represented by his total score over all 24 items. Second, we will examine separately the subject's score for each factor. In both cases, the assumption is made that one side of each adjective pair represents a normal or desirable response for most respondents; that, for example, a choice of "useful" represents higher self-esteem than "worthless."

Third, a measure of consistency of self-presentation is constructed by pooling the variances over the five factors for each subject. This is identical to a pooled within-class estimate of variance in analysis of variance, and is represented by the following formula:

$$S_w = \text{within-factor variance} = \frac{\sum_i \sum_j (X_{ij} - \bar{X}_{.j})^2}{n - m}$$

where X_{ij} = the i'th score on the j'th factor

$\bar{X}_{.j}$ = the mean of the j'th factor

n = the total number items over m factors

m = the number of factors

Dependent Variables

The following are standards which will be considered indicative of adjustment to the mental hospital ward:

(1) Maintenance of the body--grooming, clothes, posture, and locomotion.

(2) Making socially acceptable transactions with others, including staff members, other patients, and outsiders.

(3) Engaging in programmed instrumental activity.

(4) Appropriate expressive behavior, and the absence of bizarre behavior, or inappropriate conduct.

(5) Orientation for time, person and place.

The operational variables for these criteria will be fully described below; they are:

(a) observed social interaction

(b) observed instrumental behavior

(c) observed noninstrumental behavior

(d) self care

(e) aggressiveness

(f) interest and involvement in surroundings

(g) orientation for time, place and person

(h) sociability

(i) schizoid symptoms

The criteria represent a set of minimal treatment goals; i.e., one conception of adjustment for geriatric patients.

I use the term adjustment with some reluctance--it is one of those words that is seen so often in the mental health literature that it must mean something; yet it is seldom precisely defined. As Rosow (1961) points out, most studies of adjustment rest upon the implicit or explicit assumption of equilibrium, where adjustment refers to a system which has achieved a steady state. The system may consist of an individual and his psychological life space, employing Lewinian concepts of field and force; or it may consist of a set of interdependent

individuals constituting a social system, which may be described from the standpoint of any given age as a social life space (Williams, 1960).

The notion of equilibrium presents both conceptual and methodological problems, for it is difficult to define and measure the forces that must be in balance before a steady state is attained. One equilibrium approach, where the person is the system, is presented by Phillips (1957) who defines maladjustment as the degree to which there is a patterned lack of alignment between the needs of the individual and the rewards he obtains. According to Phillips, "this state may be indicated by the individual's degree of habitual involvement in the world of fantasy" (1957, p. 213). His operational definition of degree of maladjustment is the extent to which the individual reports that he finds himself being absentminded, daydreaming about the past, and having thoughts of death, on the assumption that this type of fantasy in some way substitutes for the failure of the individual to obtain the types of rewards necessary to a more direct satisfaction of personal needs. This seems like a rather devious way to measure need-reward ratios inasmuch as neither evidence nor compelling logical derivation is offered to support the assumption that maladjustment, so defined, is consistently related to self-reported fantasy behavior.

Havighurst (1957) defines adjustment as the competence with which people perform their social roles, and his criteria consist of culture-wide definitions of success and failure, as established by the "spokesmen of American values--the social philosophers and ethical leaders." Rosow (1961) criticizes the Havighurst treatment for its ethnocentrism, for over-emphasizing middle class values and behavior,

while at the same time placing a premium on activity per se, such that the lower class person must to some degree be considered maladjusted by virtue of his stratum membership alone.

Rosow (1961) would like to define adjustment in terms of statistical norms, on the assumption that most people are adjusted--but he recognizes that the data from which to obtain such norms are not available for the geriatric segment of the population. His own temporary expedient would be to compare the individual's present level of functioning to that of his middle age. In other words, since we need some standard by which to judge the old person, why not compare his present state to that of earlier (and better?) days? This approach would be reasonable for persons who are not inhabitants of a mental hospital--a world so different from that of their middle age that the comparison of present with past would not seem entirely feasible.

Havighurst's criteria were two pronged: he asked, "Does the respondent engage in certain social roles?" and "If so, how much energy does he invest in these activities?" Now perhaps the problem with his criteria for adjustment among the aged is not just that they are ethnocentric, but rather that they apply only to a subset of the population for which they were intended; which is to say that they only become inappropriate when applied to the wrong people. (I would agree, for example, that geriatric patients in a state mental hospital are not the right people for Havighurst's criteria.) Adjustment means adjustment to something, a reciprocal arrangement between person and system which permits the two to peacefully coexist, whether in a steady state or not. For that reason criteria were developed for this study which

are relevant to the general social context in which behavior is to be judged, although no attempt is made to directly measure systemic equilibrium or balance.

Two measuring devices were employed to assess the patient's adjustment in the ward setting: (1) the Ward Behavior Rating and (2) the Behavior Observation Schedule. The Ward Behavior Rating was devised by Gottesman (Gottesman and Schneider, 1962) in order that ward attendants might systematically describe various aspects of the patient's behavior on a series of Likert type scales. It is based on, and similar to a number of earlier ward rating scales (Lorr, 1954; Wittenborn, 1950; Ellsworth, 1957; Burdock, et al., 1960), but is specifically designed for use with geriatric patients, covering such behavioral dimensions as daily self care, interpersonal relations, and manifest psychomotor symptoms.

The original form of the WBR was completed by ward attendants for each subject early in the project year, within about two months after he arrived on his assigned ward (but not prior to the beginning of the project). This first attempt yielded twenty-four items (out of forty) which had sufficient reliability and variance to be useful. These were supplemented by nine additional items to constitute the second form which was administered at the end of the project year, or prior to discharge if the patient left the hospital before the end of the year. Table 10 presents the item reliabilities and distributions for the final version of the WBR. Note that the reliabilities range from .45 to 1.00, with the modal reliability above .70.[1]

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[1]Inter-rater reliabilities were computed by examining the

TABLE 10

WARD BEHAVIOR RATING FACTOR STRUCTURE

Item	Item Reliabilities		Factor Loading
	Experimental	Control	
Self Care			
Eating	.90	.71	.65
Toilet	.78	.88	.73
Bathing	.55	.80	.71
Grooming	.70	.70	.88
Dressing	.74	.94	.84
Cooperativeness	.62	.81	.68
Aggressiveness			
Assaultiveness	.74	.45	.54
Cursing	.55	.66	.99
Irritability	.57	.73	.60
Demanding	.56	.72	.43
Interest and Involvement in Surroundings			
Activities on ward	.71	.73	.46
Rate of motion	.57	.75	.42
Interest in surroundings	.82	.70	.92
Ward work	.70	.94	.43
Orientation			
Confusion	.77	.89	.90
Sensibility	.85	.85	.52
Need for psychiatric care	.77	.71	.39
Mobility	.62	.79	.30
Change in psychiatric condition	.81	.60	.39
Sociability			
Relations with patients	.63	.87	.74
Relations with staff	.56	.63	.75
Schizoid Symptoms			
Hallucinations	.92	.74	.69
Fearfulness	.55	.67	.67
Destructiveness[a]	.84	.45	--
Delusions[a]	.63	.59	--

[a]These two items were not included in the factor analysis. Destructiveness did not meet the criterion for sufficient variance, and there was too much missing data for the delusions item. Nonetheless, they were included in the analysis because it was felt that the advantage in terms of theoretical relevance outweighed the disadvantage in terms of missing information.

The WBR data were submitted to a Sequential Dependency Analysis (as described above, page 154) which produced six factors, accounting for 61 per cent of the total variance in the test. In Table 10 the factors are described. For the present analysis scores were computed on each factor for all subjects by summing the scores over the items on that factor. Items which do not appear on both the pre- and post-forms of the WBR were not included in this analysis, several items were dropped because they exhibited no variance, and one item (delusions) was dropped because it was not answered by a large number of raters. For each factor, the patient's score on the post form was subtracted from his score on the pre form, to represent a difference, or change, score.[1] These change scores were used in the analyses of variance which are presented in Chapter IV.

A direct attempt was made to observe and rate the behavior of subjects, using a Behavior Observation Schedule. The patient was observed for two ten-minute periods, once in the morning and once in the afternoon, by members of the research staff. The observer attempted to rate each unit of activity in which the patient was engaged according to (1) whether it was instrumental or noninstrumental (i.e., goal directed or not), (2) whether or not the patient was involved in interaction or not. These were the major categories; within each,

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agreement of 5 raters over 10 patients in the experimental group, and 5 raters over 10 patients in the control group. The reliability coefficient presented in Table 10 is Robinson's coefficient of agreement ("A") (Robinson, 1957, 1959).

[1]In computing the difference scores, missing data on one form was replaced with the patient's score on the other form. This would yield a difference of zero, thus underestimating change.

subcategories were available which enabled the observer to describe the subject's behavior in greater detail.

The major categories--instrumental behavior, noninstrumental behavior, and interaction are employed in this analysis. Behavior was rated as instrumental when it appeared to the observer that it was directed towards the attainment of some goal.[1] Behavior was rated as interaction when it appeared to the observer that the subject was engaged in a verbal or nonverbal communication with another person or persons. For all of these categories the observer had the sometimes difficult task of deciding upon the unit--i.e., What set of events constitutes a complete, differentiated act? It was necessary to establish certain coding conventions to accommodate borderline situations. If, for example, a patient carried on a five minute conversation with his neighbor in the next chair but paused occasionally he was scored for one five-minute interaction, not a series of 30 second interactions alternating with periods of noninteraction. The crucial issue was whether, in context, the patient seemed to be involved in a single continuous chain of events, or whether his behavior with respect to interaction was discontinuous and intermittent.

After a training period and with a few days practice any two raters could reach about 90 per cent agreement on the categories used in this analysis: social interaction, instrumental behavior, and

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[1]A goal is defined as some desired change in the relationship between the individual and his environment. This would include such acts as sweeping the floor, writing a letter, asking for information, etc., but would exclude such activities as sleeping, sitting and staring into space, "passing the time of day" with a neighbor, and pacing back and forth in the hall.

noninstrumental behavior. All behavior was recorded in units of one second. For "interaction" the range of possible scores was 0 to 600 for each observation, 0 - 1200, for the total observation period (10 minutes x 60 seconds x 2 observations). For instrumental behavior the range of scores was 0 - 2400, since the subject might have been engaged in an instrumental noninteractive act, and an instrumental interaction simultaneously. For noninstrumental behavior the range was 0 - 1200.[1]

The Analysis of Variance

The two-way analysis of variance utilized for this study was accomplished with aid of an IBM 7090 program written by Cooley and Lohnes (1962). The statistical procedure requires that the number of cases in the cells of each row be proportional to the column marginals. Thus, for example, if the experimental subjects outnumber the control patients by a ratio of six to four, the same proportionality must exist at each level of the other independent variable (mental status, for example). Recall that there were eight predictor variables in addition to the differing treatments. Frequency distributions for each of these were plotted and each of the eight variables was broken down into categories which maximized the proportionality of experimentals to controls in each category. In order to meet the requirement of proportionality it was necessary to insert several "dummy cases" into each analysis.

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[1] In preparing the data for analysis, each score was divided by a constant 10 in order to facilitate card punching. Scores less than 10 seconds were arbitrarily scored "1".

A dummy case is assigned to a specific predictor category in the experimental or control group. The computer program automatically assigns the mean of its subgroup on the dependent variable to this case.[1]

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[1]Self consistency was trichotomized and all of the other personality measures were dichotomized. Cutting points were selected so as to obtain roughly equal numbers of cases in each level and at the same time minimize the number of dummy cases required to meet the assumption of proportionality.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

The results will be presented for each dependent variable. Thus, I will present data relevant to treatment effects, personality effects, and the interaction of treatment and personality for the three criteria derived from the Behavior Observation Schedule (observed social interaction, observed instrumental behavior, and observed noninstrumental behavior), and for each of the six Ward Behavior Rating factors (self care, aggressiveness, interest and involvement in surroundings, orientation, sociability and schizoid symptoms). The discussion will center around the three types of effects.

Before presenting these data, it is necessary to consider the inter-relationships among the personality variables. Recall that there are eight personality variables: mental status, as measured by the Goldfarb Mental Status Questionnaire, and seven different operations on the semantic self-concept test: consistency of self-concept, as measured by the pooled estimates of within-factor variance; self esteem, which is the total score for all twenty-four items; a health energy factor, an evaluation factor, a morale factor, a wisdom factor and a popularity factor. It is legitimate to question whether or not these variables represent separate aspects of personality, or whether

they are not different ways of expressing one or a few dimensions. In the case of the five semantic factors we can be reasonably sure that separate dimensions are represented, in as much as the procedure by which factors are extracted aims at orthogonality. But we would expect the factors to correlate with self-esteem since that measure is constructed by summing the item scores, most of which are included in the factor structure.

Table 11 presents the intercorrelations among the eight predictor variables. Note that there is virtually no relationship between mental status and any of the other personality variables. The largest correlation coefficient, self esteem ($r = .26$), is just significant at the .05 level and indicates that mental status explains less than nine per cent of the variance in self esteem. Similarly, self-consistency

TABLE 11

CORRELATION MATRIX: RELATIONSHIPS AMONG PERSONALITY VARIABLES

	MS	SC	SE	HE	Eval	Mor.	Wis.
Mental Status							
Self consistency	.08						
Self esteem	.26	.32					
Health energy	.15	.19	.81				
Evaluation	.21	.31	.73	.36			
Morale	.14	.17	.78	.52	.04		
Wisdom	.00	.16	.66	.06	.33	.44	
Popularity	.15	.25	.60	.03	.57	.45	.18

(as measured by the pooled within factor variances) is not related to the other predictor variables, with the possible exception of self-esteem ($r = .32$).

As anticipated, there are strong, statistically significant relationships between self-esteem and the semantic factors. There is, however, sufficient independence among these factors to warrant separate analysis and interpretation, as long as we do not forget that they are correlated with the total sum measure of self-esteem.

Results

Observed Social Interaction

This measure, derived from the Behavior Observation Schedule, was taken only at the end of the project-year. The results are presented in Table 12, which shows that there is no significant difference between the experimental and control conditions. The only personality variable which is related to observed social interaction is self esteem ($p < .01$). For both experimentals and controls there is a direct relationship between self esteem and social interaction (i.e., those who score high in self esteem have on the average higher interaction scores than do those who score low in self esteem).

Observed Instrumental Behavior

This dependent variable is also derived from the Behavior Observation Schedule administered at the end of the project-year. Table 13 indicates statistically significant treatment effects ($p < .001$): the experimental group was engaged in more instrumental behavior than were

TABLE 12

SUMMARY OF RELATIONSHIPS BETWEEN OBSERVED SOCIAL INTERACTION AND INDEPENDENT VARIABLES--TREATMENT AND PERSONALITY

	Treatment Effect		
	Experimental	Control	Significance ($p <$)
Mean Interaction Rate	12	15	NS

	Personality and Interaction Effects				
	Mean Interaction Rate			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	12	15	13	NS	NS
Low	7	14	10		
Self consistency					
High	9	11	10		
Moderate	16	23	19	NS	NS
Low	7	7	7		
Self esteem					
High	26	20	23	.01	NS
Low	6	14	9		
Health-energy					
High	19	16	17	NS	NS
Low	5	15	10		
Evaluation					
High	5	15	9	NS	NS
Low	15	15	15		
Morale					
High	19	14	17	NS	NS
Low	8	16	11		
Wisdom					
High	14	13	13	NS	NS
Low	6	20	12		
Popularity					
High	11	15	13	NS	NS
Low	11	16	13		

TABLE 13

SUMMARY OF RELATIONSHIPS BETWEEN OBSERVED INSTRUMENTAL BEHAVIOR AND INDEPENDENT VARIABLES--TREATMENT AND PERSONALITY

	Treatment Effect		
	Experimental	Control	Significance ($p <$)
Mean Instrumental Behavior	72	30	.001

	Personality and Interaction Effects				
	Mean Instrumental Behavior			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	71	37	56	.05	NS
Low	56	17	39		
Self consistency					
High	74	36	58		
Moderate	75	24	53	NS	NS
Low	64	31	50		
Self esteem					
High	85	40	66	NS	NS
Low	67	26	49		
Health-energy					
High	76	27	55	NS	NS
Low	68	31	52		
Evaluation					
High	67	31	52	NS	NS
Low	75	28	55		
Morale					
High	68	34	53	NS	NS
Low	72	27	53		
Wisdom					
High	68	26	51	NS	NS
Low	76	35	59		
Popularity					
High	68	36	54	NS	NS
Low	77	22	53		

the controls. There is a direct relationship between the personality variable, mental status, and observed instrumental behavior ($p < .05$). In general, the high mental status group has a higher mean instrumental behavior rate than the low mental status group. It is interesting to note that if one ranks the four categories from high to low mean instrumental behavior rates, the following order is obtained: high mental status, experimental; low mental status, experimental; high mental status, control; low mental status, control.

Observed Noninstrumental Behavior

This is the third dependent variable taken from the Behavior Observation Schedule. In this case, a high score indicates low adjustment. Table 14 presents the summary of relationships between observed noninstrumental behavior, treatments and the personality variables. The treatment effect is statistically significant, with the experimental group showing less noninstrumental behavior than the control group. None of the personality variables are related to this dependent variable, and there are no significant interaction effects.

Self Care

In the case of self care and the remaining dependent variables we will consider the change in the scores from early in the project-year to late in the project-year. The basic datum for the dependent variable is a difference score indicating improvements or decline on the variable in question.

There are no treatment or personality main effects which are statistically significant for the dependent variable change in self

TABLE 14

SUMMARY OF RELATIONSHIPS BETWEEN OBSERVED NONINSTRUMENTAL BEHAVIOR AND INDEPENDENT VARIABLES--TREATMENT AND PERSONALITY

	Treatment Effect		
	Experimental	Control	Significance ($p <$)
Mean Noninstrumental Behavior	55	92	.001

	Personality and Interaction Effects				
	Mean Noninstrumental Behavior			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	58	84	69	NS	NS
Low	66	106	83		
Self consistency					
High	48	86	64	NS	NS
Moderate	57	99	75		
Low	61	90	73		
Self esteem					
High	47	83	62	NS	NS
Low	58	96	74		
Health-energy					
High	54	94	71	NS	NS
Low	56	91	71		
Evaluation					
High	56	90	71	NS	NS
Low	55	94	71		
Morale					
High	63	86	73	NS	NS
Low	52	96	71		
Wisdom					
High	59	95	74	NS	NS
Low	49	88	65		
Popularity					
High	60	87	72	NS	NS
Low	47	98	69		

care (see Table 15). There is some indication, however, of interaction between treatment and self consistency, and between treatment and self esteem, as related to change in self care. For experimental patients there is an inverse relationship between self consistency and the self care difference scores, whereas for the control patients that relationship is direct. Similarly, among the experimentals high self esteem patients show a decline in self care while low self esteem patients show an increase. But for the controls, the direction is reversed--the control patients with a high mean self esteem score show improvement, while the low self esteem controls show a decline in self care.

Aggressiveness

There is a statistically significant difference between the experimental and control group with respect to change in aggressiveness from early to late in the program. The experimental group becomes more aggressive, while the control group becomes less aggressive (see Table 16). The personality effects for self consistency and self esteem are also statistically significant. The groups which are either low or high in self consistency show a decrease in aggressiveness, while the moderate self consistency group shows an increase in aggressiveness. Note that while the interaction effects were not significant, it is the moderate self consistency experimentals who undergo the greatest increase in aggressiveness, while the low self consistency controls show the greatest decrease.

Change in aggressiveness from early to late in the program is also related to self esteem. High self esteem patients become on the

TABLE 15

SUMMARY OF RELATIONSHIPS BETWEEN CHANGE IN SELF CARE AND INDEPENDENT VARIABLES--TREATMENT AND PERSONALITY

	Treatment Effect		
	Experimental	Control	Significance ($p <$)
Mean Change in Self Care	-.26	-.49	NS

	Personality and Interaction Effects				
	Mean Change in Self-Care			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	-.64	-.17	-.44	NS	NS
Low	-.32	-1.55	-.83		
Self consistency					
High	-1.31	.38	-.59		
Moderate	.11	-.54	-.17	NS	.05
Low	.53	-1.67	-.40		
Self esteem					
High	-1.62	.20	-.84	NS	.05
Low	.27	-.76	-.17		
Health-energy					
High	-.45	.24	-.16	NS	NS
Low	-.04	-1.17	-.52		
Evaluation					
High	.00	-.56	-.24	NS	NS
Low	-.39	-.42	-.40		
Morale					
High	-1.00	.25	-.45	NS	NS
Low	.05	-.87	-.35		
Wisdom					
High	-.65	-.13	-.43	NS	NS
Low	.47	-1.17	-.22		
Popularity					
High	-.45	.25	-.15	NS	NS
Low	.16	-1.11	-.39		

TABLE 16

SUMMARY OF RELATIONSHIPS BETWEEN CHANGE IN AGGRESSIVENESS AND INDEPENDENT VARIABLES--TREATMENT AND PERSONALITY

	Treatment Effect		
	Experimental	Control	Significance ($p <$)
Mean Change in Aggressiveness	-.37	.57	.01

	Personality and Interaction Effects				
	Mean Change in Aggressiveness			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	-.24	.48	.07	NS	NS
Low	-.75	.55	-.21		
Self consistency					
High	.31	.38	.34		
Moderate	-1.26	.38	-.56	.05	NS
Low	.00	1.11	.47		
Self esteem					
High	.15	1.20	.60	.05	NS
Low	-.57	.32	-.19		
Health-energy					
High	-.73	1.12	.06	NS	.05
Low	-.11	.06	-.04		
Evaluation					
High	-.14	.81	.27	NS	NS
Low	-.57	.37	-.17		
Morale					
High	-.38	1.17	.29	NS	NS
Low	-.38	.26	-.10		
Wisdom					
High	-.42	.78	.09	NS	NS
Low	-.32	.17	-.11		
Popularity					
High	-.87	.75	-.17	NS	.01
Low	.42	.42	.42		

average less aggressive, while low self esteem patients show a tendency toward greater aggressiveness.

Interest and Involvement in Surroundings

There are no treatment effects and no personality effects which reach statistical significance for the relationships between the change scores for interest and involvement, treatment and initial personality (see Table 17). However, the interactions between treatment and wisdom, and between treatment and popularity are significantly related to the change in interest and involvement in surroundings. The pattern for both interactions is the same: for the experimentals there is an inverse relationship between the personality measure and the dependent variable, whereas for the controls there is a direct relationship between the personality measure and the dependent variable.

Orientation

Again, there is no statistically significant difference between the experimental and the control group with respect to change in orientation. Significant effects do exist for initial mental status and initial wisdom in relation to change in orientation. Table 18 presents these data. On the average, patients who score high in mental status either improve more or decline less in orientation than do patients who score low in mental status.

An inverse relationship is found for wisdom and change in orientation.[1] The general pattern, however, is mainly a function of the

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[1]Recall that wisdom is composed of two semantic items,

TABLE 17

SUMMARY OF RELATIONSHIPS BETWEEN CHANGE IN INTEREST AND INVOLVEMENT IN SURROUNDINGS AND INDEPENDENT VARIABLES-- TREATMENT AND PERSONALITY

Mean Change in Interest and Involvement	Treatment Effect		
	Experimental	Control	Significance ($p <$)
	-.33	-.52	NS

	Personality and Interaction Effects				
	Mean Change in Interest and Involvement			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	-.67	-.39	-.55	NS	NS
Low	.04	-.40	-.15		
Self consistency					
High	-.81	.08	-.43	NS	NS
Moderate	.26	-1.00	-.28		
Low	-.47	-.67	-.55		
Self esteem					
High	-1.46	-.20	-.92	NS	NS
Low	.11	-.64	-.21		
Health-energy					
High	-.64	-.12	-.42	NS	NS
Low	-.04	-.89	-.40		
Evaluation					
High	-.91	.00	-.52	NS	NS
Low	.18	-.95	-.30		
Morale					
High	-1.46	-.58	-1.08	NS	NS
Low	.11	-.48	-.15		
Wisdom					
High	-1.00	-.43	-.76	NS	.05
Low	.84	-.67	-.21		
Popularity					
High	-.71	-.06	-.43	NS	.05
Low	.37	-.89	-.18		

TABLE 18

SUMMARY OF RELATIONSHIPS BETWEEN CHANGE IN ORIENTATION AND INDEPENDENT VARIABLES--TREATMENT AND PERSONALITY

	Treatment Effect		
	Experimental	Control	Significance ($p <$)
Mean Change in Orientation	-.33	.39	NS

	Personality and Treatment Effects				
	Mean Change in Orientation			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	-.28	.87	.22	.05	NS
Low	-.75	-.68	-.72		
Self consistency					
High	-.31	1.00	.25		
Moderate	-.78	.08	-.41	NS	NS
Low	.20	.00	.12		
Self esteem					
High	-.54	1.70	.42	NS	.05
Low	-.25	-.12	-.19		
Health-energy					
High	-.59	.76	-.01	NS	NS
Low	-.11	.06	-.04		
Evaluation					
High	-.33	1.06	.27	NS	NS
Low	-.32	-.16	-.25		
Morale					
High	-1.08	.75	-.28	NS	NS
Low	-.06	.22	.06		
Wisdom					
High	-.97	.43	-.38	.05	.05
Low	.68	.33	.54		
Popularity					
High	-.20	.88	.26	NS	NS
Low	-.53	.00	-.30		

contributions of the experimental group, among which high wisdom patients declined markedly relative to the low wisdom patients, who improved. Among the control patients both groups (high and low wisdom scorers) improved in orientation. Interaction effects for the relationship between wisdom, treatment and change in orientation were significant at $p < .05$.[1]

Sociability

Table 19 indicates that there is no significant difference between the experimental and the control group with respect to change in sociability. There are, however, significant relationships between change in sociability and self consistency, morale, and wisdom. The moderate self consistency group becomes more sociable, while the high and low self consistency groups show a decrease in sociability; this pattern holds for both experimental and control groups. There is a direct relationship between morale and change in sociability--the group which is high in initial morale increases in sociability, while the low morale group shows a mean decrease. However, the reverse is true for the relationship between wisdom and change in sociability. Patients who initially rate themselves high in wisdom show, on the average, a

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"wise-foolish" and "quick-slow" (which must have been interpreted by the respondents as referring to a quality of mind, rather than motoric skill).

[1]Note that in determining the F ratio for analysis of variance, the within-cell mean square estimate was used as the error term. If the interaction mean square had been used as the denominator for the F ratio, the wisdom effect would not have been statistically significant. For a discussion of appropriate error terms in analysis of variance, see Blalock, 1960, pp. 256-63.

TABLE 19

SUMMARY OF RELATIONSHIPS BETWEEN CHANGE IN SOCIABILITY AND INDEPENDENT VARIABLES--TREATMENT AND PERSONALITY

	Treatment Effect		
	Experimental	Control	Significance ($p <$)
Mean Change in Sociability	-.12	.00	NS

	Personality and Interaction Effects				
	Mean Change in Sociability			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	.30	-.52	-.06	NS	.001
Low	-.54	.80	.02		
Self consistency					
High	-.13	-.23	-.17	.05	NS
Moderate	.32	.38	.35		
Low	-.67	-.22	-.48		
Self esteem					
High	.00	-.40	-.17	NS	NS
Low	-.16	.16	-.02		
Health-energy					
High	-.27	.00	-.16	NS	NS
Low	.00	.00	.00		
Evaluation					
High	-.05	-.38	-.19	NS	NS
Low	-.18	.32	.03		
Morale					
High	.38	.42	.40	.05	NS
Low	-.30	-.22	-.26		
Wisdom					
High	-.26	-.30	-.30	.05	NS
Low	.11	.58	.58		
Popularity					
High	-.06	.19	.04	NS	NS
Low	-.21	-.16	-.19		

decline in sociability; while the low wisdom group increases its mean sociability score.

It is interesting to note that the interaction effect for the relationship between mental status, treatment, and change in sociability is significant at the $p < .001$ level. Among the experimentals there is a direct relationship between mental status and change in sociability, but an inverse relationship among the controls.

Schizoid Symptoms

Table 20 reports a summary of the findings for change in schizoid symptoms. The treatment effect is significant: controls show a decrease while the experimentals show a slight increase, in schizoid symptoms.

There is an inverse relationship between health-energy and change in schizoid symptoms: patients who rate themselves low in health-energy show on the average a greater decrease in schizoid symptoms than do patients who rate themselves high in health-energy. There is a similar inverse relationship between popularity and change in schizoid symptoms.[1]

The interaction effect is statistically significant for the relationship between change in schizoid symptoms, treatment and morale. Experimental subjects who rate themselves low in morale show, on the average, a decrease in schizoid symptoms, while high morale experimentals show an increase. On the other hand, both control groups decrease

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[1]Note that although the interaction effects for these two comparisons are not significant, in both cases the high experimental group is the only group which shows an increase in schizoid symptoms.

TABLE 20

SUMMARY OF RELATIONSHIPS BETWEEN CHANGE IN SCHIZOID SYMPTOMS AND INDEPENDENT VARIABLES--TREATMENT AND PERSONALITY

	Treatment Effect		
	Experimental	Control	Significance ($p <$)
Mean Change in Schizoid Symptoms	-.03	.73	.05

	Personality and Interaction Effects				
	Mean Change in Schizoid Symptoms			Significance ($p <$)	
	Experimental	Control	Combd.	Personality	Interaction
Mental status					
High	-.06	.78	.30	NS	NS
Low	-.22	.15	-.07		
Self consistency					
High	.13	.31	.20		
Moderate	-.18	.77	.23	NS	NS
Low	.00	1.22	.52		
Self esteem					
High	-.62	1.10	.12	NS	NS
Low	.20	.56	.35		
Health-energy					
High	-.68	.59	-.14	.01	NS
Low	.54	.83	.66		
Evaluation					
High	-.15	.56	.16	NS	NS
Low	.07	.84	.40		
Morale					
High	-.62	1.25	.20	NS	.05
Low	.20	.43	.30		
Wisdom					
High	-.23	.57	.10	NS	NS
Low	.33	1.00	.61		
Popularity					
High	-.48	.56	-.03	.01	NS
Low	.68	.84	.75		

in schizoid symptoms, with the controls who are high in morale showing the greatest decrease.

Discussion

The findings have, for the sake of simplicity, been organized around the dependent variables. In order to compare similar patterns which appear across the dependent variables, the discussion will center around the three types of effects: treatment, personality, and interactions. As we proceed I will summarize the particular results to be discussed.

Treatment Effects

Experimental patients were engaged in more instrumental behavior and less noninstrumental behavior than were the controls, at the end of the project-year. This can be interpreted primarily as evidence that the experimental program "took," i.e., that patients on the experimental ward took advantage of the opportunities for instrumental involvement which control patients did not have.

The experimental group shows change in the direction of greater aggressiveness, while the control group changes in the direction of less aggressiveness. Examination of the individual items which constitute the aggressiveness factor (assaultiveness, threatening language, irritability, and demandingness) indicate that the modal change for experimental patients is from "never" to "sometimes" or "only when provoked"; and conversely, for controls the modal change is from "sometimes" or "only when provoked" to "never." In other words, the range of alternatives utilized by the attendants in making their ratings is not great,

and a rating of extreme aggressiveness is seldom assigned to patients in either group. This suggests that one must hesitate before interpreting a change in the direction of increased aggressiveness as a sign of change toward maladjustment. It is possible to argue that, within limits, to be aggressive requires a certain degree of ego organization and ego strength.

It is also possible that the differences in the data represent differences in the ethos and operation of the control and experimental wards. As a rule, the control wards are organized so as to maintain a high degree of order and equilibrium, so that aggressive behavior is neither generated nor tolerated by the activities and attitudes of the ward staff. The experimental program, on the other hand, was certainly more likely to generate interpersonal hostility and mild aggressive behavior--there was more to be assaultive, irritable and demanding about. Furthermore, it is my impression that the experimental ward staff members were more likely to be permissive about aggressive behavior. Finally, the patients on the experimental ward were under greater surveillance than were the controls. There were more staff members (including University personnel), on the ward and with the patients, and therefore in a position to notice and report deviant behavior.

The experimentals show a slight increase in mean score for schizoid symptoms, while the controls show a decrease. These differences might also be attributed to more surveillance on the experimental ward, more anxiety generated by the program, and/or more permissiveness on the part of ward attendants, but it is important to remember that there were proportionately more schizophrenics on the experimental ward

than there were in the control group.[1] In a sense, therefore, the experimental program had to work harder if it were to match the control treatment with respect to change in schizoid symptoms. In the absence of additional converging data, it is impossible to do more than speculate about these findings.

It is interesting to note, however, that the only Ward Behavior Rating factors (schizoid symptoms and aggressiveness) which show significant differences between the two groups are those that deal with the presence of deviant behavior rather than levels of competence in accepted behaviors. It is necessary to consider the reliability of the measuring instrument, and in doing so raise still another possible interpretation for the fact that experimentals show an increase in reported aggressiveness and schizoid behavior as compared with the decrease in such behavior reported for the controls. It may well be that control and experimental ward attendants in judging their patients were using different standards for deviant behavior. Because they were intimately involved in a research project, the experimental ward attendants may have observed their patients with a heightened sensitivity to behaviors which are often considered symptomatic of maladjustment. They may have become clinicians, while the control attendants continued to judge and rate their patients in terms of their threat to ward routine.

Personality Effects

The discussion of personality effects will be ordered around the personality variables themselves, in an attempt to answer the

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[1] See Chapter III, "Sample Attrition," p. 133ff.

question, "What, if anything, does each variable explain about the change in the adjustment of the patients during the project-year?"

Mental Status

There is a direct relationship between mental status and observed instrumental behavior. Recall that the experimentals have a considerably higher mean rate for instrumental behavior than do the controls. Within the experimental group, those who score high in mental status have on the average higher instrumental behavior ratings than those who score low in mental status. The same pattern is found in the control group, even though the magnitude of the mean instrumental behavior rates is smaller. In this case, it seems clear that both the personality variable and the treatment variable have an effect on adjustment over time, and that the effect of one, in a sense reinforces the effect of the other.

Mental status is also directly related to change in orientation. Since mental status and orientation cover about the same behavioral dimensions, this finding suggests that those who are high in mental status at the beginning of the project-year either decline less or improve more in mental status than those who are low in the beginning.[1]

Self Consistency

There are interesting relationships between self consistency and two dependent variables: change in aggressiveness, and change in

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[1]Recall that the mental status score is based on the patient's answer to such questions as "What is your name?" "What is today's date?" "Where are you now?" and "Who is the president of the United States?" The WBR orientation factor is composed of the attendant's ratings of the patient for "confusion," "sensibility," "need for care," "ability to get around" and "change in psychiatric condition."

sociability. Moderate self consistency patients show an increase in aggressiveness and an increase in sociability, while the high and low self consistency groups show a decrease in these two factors. These findings are contradictory only if increased aggressiveness is interpreted as movement towards maladjustment. The fact that the relationships are curvilinear suggests the need for some refinement in the use of pooled variance estimates as a measure of ego organization. The patients who are scored high in self consistency are those who, within each factor, tend to respond in the same way to each item (usually at the positive end of the scale); which is to say that when compared with other patients they do not discriminate between the items in describing their self concepts.[1] If this be so, then a high score in self consistency is not indicative of a high degree of ego organization, and the categories should be reinterpreted as follows: a score in the moderate range is indicative of optimal ego organization, while a score at either extreme should be considered symptomatic of ego malfunction, in as much as those with a high degree of variance are unable to present a coherent self description, and those who are in the extreme low variance category are unable to discriminate among different aspects of the self.

Self Esteem

Self esteem is directly related to observed social interaction. It is also related to change in aggressiveness: the high self esteem

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[1]The range in pooled within factor variance estimates is from 0 to 3.00. The high self consistency (low variance) category contains scores which range from 0 to .69. This means that patients within this category seldom expressed inter-item differences of more than one point within any given factor.

group shows a decrease in aggressiveness, while the low self esteem group shows an increase in aggressiveness. It is difficult to explain the fact that self esteem relates to these dependent variables and no others. With regard to self esteem and social interaction, one might speculate that the high self esteem patients are extroverts--characterized by what the Cummings would call an "impinger temperament" (1962, p. 61)--and as these patients become more secure in the ward milieu they become more involved with others. The fact that on the average, they decline in aggressive behavior is consistent with this interpretation, if one assumes that these interactions are in fact rewarding, and do not generate interpersonal hostility.

Semantic Self Concept Factors: Health-energy, Evaluation, Morale, Popularity and Wisdom

There are only a few statistically significant main effects for the semantic factor scores, and the pattern they present is, for the most part, not easily interpreted. First, there is a direct relationship between morale and change in sociability. It is quite likely that these two variables have reciprocal effects over time; as the patient engages in wider networks of relationship he may gain in confidence and security, thus further increasing his transactions with others.

Consider, however, the fact that there are inverse relationships in the following cases: health-energy and change in schizoid symptoms; popularity and change in schizoid symptoms; wisdom and change in orientation; wisdom and change in sociability. The groups that are rated low in health-energy and popularity show the greatest decrease in

schizoid symptoms. This is most pronounced for the experimental patients, where the high health-energy and popularity groups show an increase in schizoid behavior. Similarly, there is an inverse relationship between the semantic factor wisdom and the criterion variables orientation and sociability.

In order to understand these reversals in the predicted relationships, it is necessary to consider a new interpretation for the scores on the semantic factors, health-energy, wisdom and popularity. Both health-energy and wisdom require the patient to judge his own competence and skill, while popularity asks him to make a judgment about his own stature in the eyes of others.[1] It occurs to me that a low score on these factors may represent realistic insight on the part of the patient rather than a decrement in ego functioning. This interpretation is supported by the fact that all three distributions are positively skewed, which is to say that a "low" score on an item in these factors represents a neutral or somewhat negative, but not extremely negative self characterization.[2]

Interaction Effects

There are a number of cases in which the interaction of personality variables and treatment conditions is significantly related to adjustment, even though neither of the main effects is statistically significant.

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[1]Note that the morale factor ("happy-sad," "not worried-worried," and "relaxed-nervous") which is directly related to sociability, does not require the patient to evaluate his own competence.

[2]There is, of course, another possible interpretation: that the semantic differential is a poor measure of self-concept. This possibility is discussed below in the section on interaction effects.

The experimental patients who are high in mental status show an increase in sociability, while the experimental patients who are low in mental status show a decrease in sociability. The pattern is reversed, however, for the control patients. The high mental status group declines in sociability and the low mental status controls improve. It would seem, therefore, that under routine ward conditions (i.e., on the control wards), patients who are high in mental status are likely to withdraw from relations with staff and other patients (at least relative to the low mental status controls). On the experimental ward, however, the high mental status patients seem drawn into more frequent contacts with others than are the patients who are low in mental status.

Interactions which involve the variables based on the semantic self concept measure are not so readily interpretable. In these cases the following general pattern exists: among the experimental patients there is an <u>inverse</u> relationship between personality and change in adjustment; among the control patients there is a <u>direct</u> relationship between personality and adjustment. Figure 8 identifies the interactions which fit this pattern.

There would seem to be three possible explanations for these complex findings: First, it was suggested above that a <u>low</u> score on health-energy, popularity, and wisdom may be indicative of greater insight into one's own limitations. If this be so, then it makes sense that low scoring experimental patients show greater improvement than high scoring experimentals. The argument would apply to the self esteem measure as well, since the former factors are in large part components of the self esteem score. The weakness of this explanation is

Figure 8. Interaction Effects: An inverse relationship between personality and change in adjustment for experimental patients, and a direct relationship between personality and adjustment for control patients.

Treatment interacts with:	In relationship to:
self consistency	self care
self esteem	self care
self esteem	orientation
health-energy	aggressiveness
morale	schizoid symptoms
popularity	aggressiveness
wisdom	interest and involvement in surroundings

that it does not account for the fact that the relationship is reversed in the case of the control patients, i.e., that there is a direct relationship between the personality variables and adjustment. Furthermore, this explanation does not account for the interactions of treatment with self consistency in relation to self care.

Second, one could perhaps more readily argue that a high score on the semantic factors in question is indeed indicative of ego eufunction rather than dysfunction. It may well be that the pattern found among the experimental patients is a true interaction between the therapeutic milieu program and personality differences. In this case I would suggest that the high scoring experimental patients had "gone about as far as they could go" (or at least as far as the WBR could measure) by the time of the first testing, which occurred after the beginning of the project-year.[1] In other words, among the experimentals, certain

[1]One of the methodological problems with the Ward Behavior Rating is that for most items the full range of possible responses is not

patients--those who score high on these personality dimensions--respond immediately to the experimental program, in fact before the first testing is accomplished. The others respond to the experimental intervention more slowly, and their change is registered in the difference between early and late WBR ratings. Among the controls, in the absence of an activity program, there is a direct relationship between these personality variables and the measures of change in adjustment.

The weakness of this interpretation is that it does not explain the fact that in every instance of interaction reported in Figure 7, the experimentals who are high on the personality dimension decline in adjustment. It is possible that having gone as far as they could go, they had nowhere to go but down. Thus the data would represent a real regression and progression toward the mean which is not a statistical artifact.[1]

One must recognize a third possibility, that the semantic differential, as it was utilized in this study, is not a valid measure of self concept. Rather, it is possible that the measure is tapping some other attitudinal dimension which varies consistently among experimental and control patients, perhaps related to the test and testing situation rather than the self.

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utilized. Extreme negative categories are seldom checked, and extreme positive categories are often checked, suggesting perhaps that the upper limit was not high enough.

[1]Research which is currently being conducted by the Division of Gerontology may shed some light on the validity of this interpretation. In a study of long term geriatric patients, measurements are being taken to evaluate the rate of change as well as the existence of change among patients exposed to the experimental program.

Change in Personality Variables

Data are available which permit me to make an exploratory test of the Cummings' hypothesis that exposure to the therapeutic milieu will induce change in ego organization and function. I will present data to compare pre- and post-administrations of the Goldfarb Mental Status Questionnaire, and the semantic differential measure of self concept.

Results

Table 21 shows the difference of means for mental status before and after treatment, for experimentals and controls. The experimental group shows a small, but statistically significant increment in mean mental status score, while the control group shows a very slight decrement in mean mental status score which is not statistically significant.

Table 22 shows the differences in means between the experimental and control groups for semantic self-esteem and the semantic factors, both early and late in the project year. Note that there are differences between the groups at the first administration. The experimental

TABLE 21

COMPARISON OF MENTAL STATUS SCORES[a] OF EXPERIMENTAL AND CONTROL GROUPS BEFORE AND AFTER TREATMENT

	Before		After[b]		Change
	$\bar{x}$	s.d.	$\bar{x}$	s.d.	
Experimental	8.13	3.69	8.42	3.50	+.26[b]
Control	8.27	3.52	8.23	4.10	-.04

[a]Maximum score 13.
[b]Significance $p < .10$.

TABLE 22

SELF CONCEPT[a]--COMPARISON OF EXPERIMENTAL AND CONTROL PATIENTS EARLY AND LATE IN STUDY

	Early					Late				
	Exper.		Control		sig.*	Exper.		Control		sig.*
	$\bar{x}$	s.d.	$\bar{x}$	s.d.	p <	$\bar{x}$	s.d.	$\bar{x}$	s.d.	p <
Self-esteem	52.9	13.4	57.6	14.9	.10	50.2	13.0	56.9	14.5	.01
Factors										
I. Health-energy (6 items)	15.6	5.5	17.0	4.9	.10	13.5	5.0	16.1	6.0	.025
II. Evaluation (8 items)	11.4	3.2	12.7	4.2	.10	12.2	2.9	13.8	4.2	.025
III. Morale (3 items)	8.3	3.9	9.7	4.0	.05	6.3	4.3	9.4	3.6	.005
IV. Wisdom (2 items)	4.7	2.3	4.9	1.9	N.S.	3.9	2.5	4.8	2.0	.05
V. Popularity (2 items)	4.1	1.8	5.0	2.4	.025	3.6	2.4	5.3	2.5	.005

*One-tail.

[a]High scores indicate low self-concept.

group is slightly higher than the controls for self-esteem ($p < .10$), health-energy ($p < .10$), evaluation ($p < .10$), morale ($p < .05$), and popularity ($p < .025$).

At the end of the project year the experimental group maintains and increases its advantage over the control group with respect to the means of the self-concept variables. On all of the personality variables except "evaluation," the experimentals show increments in self-concept while the controls show either a decrement or a smaller increment. For the evaluation factor, both groups decline, but the decline in mean score for the experimentals is smaller than that of the controls.

There are, it seems to me, three possible explanations for the differences which exist at the first administration, but no real basis for determining which were operative. First, the differences may be a function of differential attrition in the experimental and control samples, prior to the beginning of the project year. We know that attrition occurred and that its effects were not equivalent for the two groups (see Chapter III), but we do not know how this relates to the semantic score distributions.

Second, the differences may result from changes which occurred in the personal organization of the experimental patients after they were transferred to the experimental ward, but before the first administration of the semantic differential measure. There may have been changes in the actual dimensions represented by the scores, or changes in "test-taking" set induced by transfer to a research ward. Third, in spite of our attempt to present the test to all patients in the same way, members of the research team may have unwittingly but

systematically varied their presentation of the semantic to experimentals and controls.

Discussion

These data provide support for the Cumming hypothesis, but the magnitude of the differences between experimental and control groups, while statistically significant, is not great. Of course we have measured a very limited sample of personality dimensions and it may well be that studies with other variables will, in the future, provide a more conclusive test of the theory.

Supplementary Analysis

It is interesting to examine the relationship between initial measures of personal organization and post adjustment scores for the Ward Behavior Rating factors. I have heretofore concentrated on the data for change in these scores, because that analysis permits a simultaneous comparison of the relative effect of personality and treatment variables. One can ask, however, what effect the personality variables have on the patient's adjustment, quite apart from their effect on his change in adjustment. In other words, there may be relationships between personality and adjustment which do not show up in the change analysis. Data relevant to this question are presented in Appendix I, Tables 23 through 28. I will briefly summarize and discuss the findings here.

Results

Self care

There is a direct relationship between mental status and self

care which is statistically significant. None of the other personality measures is related to the post measure for self care (Table 23).

Aggressiveness

Mental status is related to post aggressiveness. In both the experimental and the control groups, the patients that score high in mental status are less aggressive than the patients who score low in mental status (see Table 24).[1] Self consistency is also related to the post measure of aggressiveness (see Table 24). The moderate self consistency group is high in mean aggressiveness, relative to the high and low self consistency groups.

Interest and Involvement in Surroundings

There is a direct relationship between initial mental status and post interest and involvement. Those patients who are high in mental status, as a group show more interest and involvement in their surroundings than do those who are low in initial mental status (see Table 25).

Orientation

Mental status is directly related to post orientation. Similarly, self esteem is in direct relationship to orientation (Table 26).

Sociability

Mental status is directly related to sociability (see Table 27), as are self esteem and morale. There is a curvilinear relationship

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[1] This finding does not conflict with the fact that high mental status experimentals become more aggressive over time. They do, but nevertheless at the end of the project year they show less aggressiveness than the low mental status experimentals.

between self consistency and sociability: the moderate self consistency group scores highest in sociability, while the high and low self consistency groups show less sociability.

Schizoid Symptoms

Mental status is related to the incidence of schizoid symptoms: high mental status patients showing less schizoid behavior than low mental status patients. There is a curvilinear relationship between self consistency and schizoid symptoms--the moderate category has the highest mean rate for schizoid symptoms, while the high and low self consistency groups show less schizoid behavior (Table 28).

Discussion

These findings must be interpreted with catuion, in view of the fact that there was change in the personality variables over time, however slight. Nonetheless, it is interesting that initial mental status is related to all of the dependent Ward Behavior Rating factors. We know from the change analysis that the treatment variable was significantly related to aggressiveness and schizoid symptoms, but no others. This suggests that the best single predictor of adjustment may be the mental status score.

Summary Remarks

Here an attempt will be made to draw together the positive findings--positive in the sense that they are comprehensible with a minimum of ex post facto interpretation:

(1) The activity program made a difference in the lives of the experimental patients, which was not shared by the controls. The

experimental group was engaged in considerably more instrumental behavior, and less noninstrumental behavior, than was the control group.

(2) The effect of the experimental program on other measures of adjustment is not great, but differences between the experimental and control groups are observed with respect to change in mental status, in aggressiveness, in schizoid symptoms, and in the self concept variables.

(3) The fact that the experimental patients become somewhat more aggressive (while the controls become somewhat less so) cannot be interpreted as movement towards maladjustment. At the same time, the argument that limited aggressiveness is consonant with increased adjustment would be stronger if the experimentals had shown significant increments in self care, interest and involvement, orientation, and sociability.

(4) Among the personality measures, mental status seems to be most closely related to the dependent variables. High mental status patients engage in more social interaction than do low mental status patients. They show greater improvement, or less decline, in orientation. Mental status interacts with treatment effects, such that experimentals who are high in mental status become more sociable than do the experimentals who are low in mental status; whereas for the controls the opposite pattern is found.

The "Supplementary Analysis" is compromised by the fact that the personality variables and the dependent variables were not measured at the same point in time. But taken together with the analysis of change data, there is support for the contention that mental status is related to adjustment, is related to changes in adjustment over time, and that mental status is related to the patient's response to a therapeutic milieu.

CHAPTER V

SUMMARY AND CONCLUSION

This thesis represents an attempt to critically analyze the theoretical foundations of the milieu therapy approach to the treatment of mental illness, and submit some of its major hypotheses to empirical evaluation. While there is no single, unified method, milieu therapy can be described as a means of treating, not just a patient, but rather a social system containing both patient and significant others. Indeed, by concentrating on the relationship between patient and hospital, it is possible to attribute pathology to the institution as well as (or instead of) to the patient. Thus mental illness is seen as a breakdown in relations between the individual and his social life space.

Characteristic of this point of view is the assumption that personal organization is intimately tied to social organization; that personality reflects important aspects of society. To specify this relation, most of the milieu therapists call upon the theory of social roles, the process of role internalization being the mechanism by which personal and social organizations are linked.

If pathology is a disjuncture in the articulation of personality and social systems, then therapy must be directed towards reinstating harmonious relations between them. The patient must be resocialized, in an atmosphere that provides him with the opportunity and the

incentive to participate in normal social roles. The assumption is that there exists a direct relation between the health of an organization and the health of its members; an assumption which is made more or less explicit in most of the literature produced by the proponents of milieu therapy.

The therapeutic milieu is so structured as to provide the patient with a stable and secure environment, one which does not exacerbate the degree to which he may be confused. But it must also be an environment in which he can learn and practice appropriate social roles. The most recent design for a therapeutic milieu is that of John and Elaine Cumming (1962), who add to the general formulation the concept of ego growth through crisis resolution, or problem solving. Within the context of the therapeutic milieu, they say, it is essential that the patient be called upon to resolve ever more complex problems, for it is in the process of solving problems that ego growth occurs. They cite such activities as organized work therapy and patient participation in decision-making as vehicles for resocialization.

Several criticisms of milieu theory have been raised in this dissertation. First, I questioned the assumption that the institution will be an effective therapeutic agent to the degree that it is well organized; on the grounds that while efficiency may be important to the institution, it does not necessarily lead to therapeutic change in the patient. Much that a hospital must do in order to function is either antitherapeutic or irrelevant to therapy; and conversely, much that could be done to achieve treatment goals militates against organizational effectiveness.

Second, the assumption that role enactment is always associated with personality change, or that role enactment always has important consequences for personality structure, connotes an oversocialized conception of man, and blurs what would seem to be an appropriate distinction between social motivation and social control. It was suggested that the critical task is to determine what particular types of social experiences have ameliorative consequences for what kinds of patients.

The most important comment which was applied to the theory of milieu treatment, was that the milieu theorists fail to take sufficient account of the person component in the Lewinian equation, "behavior is a function of person and environment." In an attempt to understand the so-called total system, too little attention is paid to the patient, or more specifically the patient's illness.

In order to confront these problems, the research reported here focuses on the inter-relationships of personality and treatment in a therapeutic milieu. At a large state mental hospital, the University of Michigan Division of Gerontology has been conducting an experimental treatment program for geriatric mental patients. From this project, data were available which would permit a limited comparison of the explanatory power of personality and treatment variables. An analysis of variance design was utilized to compare the change in social adjustment of experimental patients and control patients, who were also classified according to their mental status (orientation for time, place and person), consistency of self concept, general self esteem, and self rating on five dimensions: health-energy, personal evaluation, morale, wisdom, and popularity.

It was clear from the analysis that patients did respond to the activity program which was set up on the experimental ward. There were marked differences between the groups with respect to observed instrumental and noninstrumental behavior (at the end of the project-year), the experimentals showing more instrumental and less noninstrumental behavior than the controls.

Several analyses were conducted to examine the relationships between personality, treatment and adjustment. The data on mental status, self esteem, and the self concept factors were examined to determine the extent to which the two groups change on these dimensions from early to late in the project-year. Slight differences between the experimental and control groups were found on the early measures, perhaps attributable to sample attrition. By the end of the project-year, however, the experimental patients had improved their scores on the personality variables, while the controls had declined or stayed the same.

On the measures of change in behavioral adjustment (self care, aggressiveness, interest and involvement in surroundings, orientation, sociability, and schizoid symptoms), there were no statistically significant differences between the two treatment conditions, except with respect to aggressiveness and schizoid symptoms. The experimental patients become somewhat more aggressive, and showed a very slight increase in schizoid behavior, while the controls became less agressive and changed in the direction of less schizoid behavior. While these findings need not be interpreted as change for the worse on the part of the experimental patients, the data offer little support for the milieu

therapy hypothesis. However the study provides what is perhaps an unduly severe test of the milieu therapy approach, inasmuch as the subjects were in their late sixties and early seventies. Although the Ward Behavior Rating, and semantic differential technique for assessing self concept, could without doubt be refined, the same measures might have produced more definitive results with younger patients.

Among the personality variables, only mental status seems related to change in adjustment. The findings for the self concept variables are inconsistent, and difficult to interpret--even when they are statistically significant. Mental status was found to be directly related to change in orientation, and it interacts with the treatment variable in relationship to change in sociability: there is a direct relationship between mental status and change in sociability among the experimental patients, and an inverse relationship among the controls. When initial mental status scores are examined in relation to adjustment criteria measured at the end of the project-year, a direct relationship is found between mental status and rate of instrumental behavior. Furthermore, high mental status patients also show greater capacity for self care, are more interested and involved in their surroundings, more sociable, better oriented, less aggressive, and show fewer schizoid symptoms than patients who are low in mental status.

After reviewing the findings, however, one is left with the feeling that the data do not do justice to the subject--that the results are not entirely consistent with our impressions of the patients and the wards, after more than a year's experience at the hospital. That this should be so is not surprising, in view of the fact that this study

is a first, exploratory attempt to deal systematically with a controlled field study of the milieu therapy approach. There are several ways in which the methodology could be improved: First, our theories of mental illness, and in particular geriatric mental illness, are still relatively primitive. It would be wise therefore to broaden the scope of the dependent variables, to find additional kinds of outcomes which might be related to various forms of treatment. In view of the fact that the behavior observation technique successfully differentiates between experimental and control patients with respect to instrumental behavior, it might be utilized in specific contexts to gather data about the patient's competence in particular activities, such as grooming, eating, etc.

Second, now that the stage hospital is making greater efforts to discharge geriatric patients, it should be feasible to conduct meaningful follow-up studies of the patients who leave the hospital. It would also be appropriate to use discharge itself as an additional dependent variable.

Third, if further effort is made to develop a meaningful diagnostic system, then it should be possible to select and devise measures for aspects of personality which are directly related to types of personal disorganization. This research was limited to the personality variables for which data were available. It was not possible to work directly from a theory to operational measures. But in the future, it would seem reasonable to select those dimensions of personality which are relevant to a theory of pathology.

A theory of pathology should, of course, have implications not only for measurement and inquiry, but for further development of treatment programs as well. A rudimentary illustration can be taken from the findings presented here. Mental status was the only personality dimension which related with any degree of consistency to the dependent adjustment variables. On the basis of these findings and direct experience with patients who suffer extreme decrements in mental functioning, I would hypothesize that they are severely limited in their capacity to receive and process information from the environment. Research into the physiology of aging may in the future shed light on the organic correlates of senile confusion, but in the meantime it seems reasonable to suppose that these patients require a special form of therapeutic environment in which the major emphasis is placed on a stable routine and perceptual cues writ large, both in terms of the physical layout of the ward, and in the way in which the staff members relate to their patients. Patients who operate at a higher level of mental status do not need this degree of protective stability, and in fact can tolerate and probably benefit from the more frenetic atmosphere characteristic of the sheltered workshop.

Through such differentiation of patients and their problems, much can be done to resolve some of the organizational dilemmas which are implicit in the sociological literature on milieu therapy. Most milieu therapists would, for example, consider it axiomatic that the ward staff should promote a stable, secure environment, in order to avoid adventitious anxiety. They also suggest, however, that the patient should be posed with realistic problems to solve, problems which

disrupt a pathological equilibrium and initiate ego growth. It is no doubt possible to distinguish conceptually between "adventitious anxiety" and anxiety which leads to personality restructuring; but would not the task of avoiding the former and creating the latter be promoted by a careful consideration of types of patients and associated types of remedies? I would suggest, therefore, that the milieu therapy approach would profit by intensive research leading toward a contemporary diagnostic taxonomy, one that would embody theoretical propositions about the causes as well as consequences of mental illness.

APPENDIX I

DATA FOR SUPPLEMENTARY ANALYSIS: POST ADJUSTMENT MEASURES IN RELATION TO INITIAL MEASURES OF PERSONALITY

TABLE 23

POST SELF CARE BY INITIAL MEASURES OF PERSONALITY

Personality variables	Mean self care score*	F ratio	DF	Significance ($p <$)
Mental status				
High	8.12	18.693	1, 118	.01
Low	11.10			
Self consistency				
High	8.55			
Moderate	8.89	< 1	2, 97	NS
Low	9.53			
Self esteem				
High	7.88	3.257	1, 96	NS
Low	9.35			
Health-energy				
High	8.39	2.106	1, 99	NS
Low	9.43			
Evaluation				
High	9.17	< 1	1, 96	NS
Low	8.73			
Morale				
High	8.58	< 1	1, 97	NS
Low	9.18			
Wisdom				
High	8.87	< 1	1, 98	NS
Low	9.07			
Popularity				
High	9.06	< 1	1, 107	NS
Low	8.68			

*A high score indicates lower capability in self care; a low score indicates higher capability in self care.

TABLE 24

POST AGGRESSIVENESS BY INITIAL MEASURES OF PERSONALITY

Personality variables	Mean aggressiveness score*	F ratio	DF	Significance ($p <$)
Mental status				
High	4.96	6.049	1,118	.05
Low	5.69			
Self consistency				
High	4.72	8.856	2, 97	.001
Moderate	5.97			
Low	4.76			
Self esteem				
High	4.96	< 1	1, 96	NS
Low	5.30			
Health-energy				
High	5.34	< 1	1, 99	NS
Low	5.12			
Evaluation				
High	5.21	< 1	1, 96	NS
Low	5.22			
Morale				
High	5.21	< 1	1, 97	NS
Low	5.23			
Wisdom				
High	5.32	< 1	1, 98	NS
Low	5.07			
Popularity				
High	5.40	3.100	1, 107	NS
Low	4.89			

*A high score indicates more aggressiveness; a low score indicates less aggressiveness.

TABLE 25

POST INTEREST AND INVOLVEMENT IN SURROUNDINGS
BY INITIAL MEASURES OF PERSONALITY

Personality variables	Mean interest and involvement score*	F ratio	DF	Significance ($p <$)
Mental status				
High	10.71	5.319	1, 118	.05
Low	11.81			
Self consistency				
High	10.95			
Moderate	10.67	< 1	2, 97	NS
Low	11.39			
Self esteem				
High	10.31	2.509	1, 96	NS
Low	11.24			
Health-energy				
High	10.45	3.485	1, 99	NS
Low	11.42			
Evaluation				
High	11.08	< 1	1, 96	NS
Low	10.88			
Morale				
High	10.90	< 1	1, 97	NS
Low	11.08			
Wisdom				
High	10.81	< 1	1, 98	NS
Low	11.25			
Popularity				
High	10.98	< 1	1, 107	NS
Low	10.75			

*A high score indicates low interest and involvement in surroundings; a low score indicates high interest and involvement in surroundings.

TABLE 26

POST ORIENTATION BY INITIAL MEASURES OF PERSONALITY

Personality variables	Mean orientation score*	F ratio	DF	Significance ($p <$)
Mental status				
High	10.00	33.628	1, 118	.001
Low	12.45			
Self consistency				
High	10.29	2.667	2, 97	NS
Moderate	11.51			
Low	10.87			
Self esteem				
High	10.09	4.240	1, 96	.05
Low	11.18			
Health-energy				
High	10.62	1.141	1, 99	NS
Low	11.12			
Evaluation				
High	10.84	< 1	1, 96	NS
Low	10.92			
Morale				
High	10.66	< 1	1, 97	NS
Low	11.03			
Wisdom				
High	11.10	1.369	1, 98	NS
Low	10.53			
Popularity				
High	10.59	1.496	1, 107	NS
Low	11.17			

*A high score indicates a lower degree orientation; a low score indicates a higher degree of orientation.

TABLE 27

POST SOCIABILITY BY INITIAL MEASURES OF PERSONALITY

Personality variables	Mean sociability score*	F ratio	DF	Significance ($p <$)
Mental status				
High	3.29	4.226	1, 118	.05
Low	3.87			
Self consistency				
High	3.48			
Moderate	2.80	7.951	2, 97	.01
Low	4.12			
Self esteem				
High	2.87	5.299	1, 96	.05
Low	3.60			
Health-energy				
High	3.20	1.692	1, 99	NS
Low	3.57			
Evaluation				
High	3.35	< 1	1, 96	NS
Low	3.43			
Morale				
High	2.79	8.598	1, 97	.01
Low	3.66			
Wisdom				
High	3.33	< 1	1, 98	NS
Low	3.48			
Popularity				
High	3.19	2.255	1, 107	NS
Low	3.58			

*A high score indicates less sociability; a low score indicates more sociability.

TABLE 28

POST SCHIZOID SYMPTOMS BY INITIAL MEASURES OF PERSONALITY

Personality variables	Mean schizoid symptoms score*	F ratio	DF	Significance ($p <$)
Mental status				
High	5.07	6.051	1, 118	.05
Low	5.83			
Self consistency				
High	4.89			
Moderate	5.90	3.672	2, 97	.05
Low	5.12			
Self esteem				
High	5.00	1.325	1, 96	NS
Low	5.45			
Health-energy				
High	5.34	< 1	1, 99	NS
Low	5.33			
Evaluation				
High	5.41	< 1	1, 96	NS
Low	5.25			
Morale				
High	5.10	1.088	1, 97	NS
Low	5.48			
Wisdom				
High	5.38	< 1	1, 98	NS
Low	5.26			
Popularity				
High	5.45	1.389	1, 107	NS
Low	5.07			

*A high score indicates more schizoid behavior; a low score indicates less schizoid behavior.

APPENDIX II

ANALYSIS OF VARIANCE TABLES FOR MAJOR DEPENDENT VARIABLES

TABLE 29

OBSERVED SOCIAL INTERACTION BY TREATMENTS AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	605.49	1.404	NS
Mental status	1	445.15	1.033	NS
Interaction	1	114.51	< 1	NS
Within	118	431.11		
Total	121			
Self consistency				
Treatment	1	344.24	< 1	NS
Self consistency	2	1339.09	2.768	NS
Interaction	2	119.12	< 1	NS
Within	97	485.10		
Total	102			
Self esteem				
Treatment	1	386.30	< 1	NS
Self esteem	1	3817.68	8.046	.01
Interaction	1	873.43	1.841	NS
Within	96	474.46		
Total	99			
Health-energy				
Treatment	1	416.68	< 1	NS
Health-energy	1	1535.18	3.215	NS
Interaction	1	1071.11	2.243	NS
Within	99	477.48		
Total	102			

TABLE 29--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
Evaluation				
Treatment	1	536.00	1.064	NS
Evaluation	1	740.68	1.471	NS
Interaction	1	565.65	1.123	NS
Within	96	503.61		
Total	99			
Morale				
Treatment	1	402.55	< 1	NS
Morale	1	634.78	1.279	NS
Interaction	1	1012.44	2.040	NS
Within	97	496.24		
Total	100			
Wisdom				
Treatment	1	442.92	< 1	NS
Wisdom	1	46.92	< 1	NS
Interaction	1	1354.75	2.750	NS
Within	98	492.55		
Total	101			
Popularity				
Treatment	1	519.93	1.124	NS
Popularity	1	7.58	< 1	NS
Interaction	1	.44	< 1	NS
Within	107	462.53		
Total	110			

TABLE 30

OBSERVED INSTRUMENTAL BEHAVIOR BY TREATMENTS AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	37638.66	20.449	.001
Mental status	1	8071.32	4.385	.05
Interaction	1	950.46	< 1	NS
Within	118	1840.55		
Total	121			
Self consistency				
Treatment	1	44790.42	23.354	.001
Self consistency	2	475.96	< 1	NS
Interaction	2	748.94	< 1	NS
Within	97	1941.93		
Total	102			
Self esteem				
Treatment	1	43680.18	22.576	.001
Self esteem	1	5729.47	2.961	NS
Interaction	1	32.71	< 1	NS
Within	96	1934.80		
Total	99			
Health-energy				
Treatment	1	44560.20	23.255	.001
Health-energy	1	222.88	< 1	NS
Interaction	1	828.67	< 1	NS
Within	99	1916.13		
Total	102			

TABLE 30--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
Evaluation				
Treatment	1	42457.86	21.482	.001
Evaluation	1	236.31	< 1	NS
Interaction	1	738.68	< 1	NS
Within	96	1976.44		
Total	99			
Morale				
Treatment	1	43677.64	22.305	.001
Morale	1	15.13	< 1	NS
Interaction	1	735.87	< 1	NS
Within	97	1958.17		
Total	100			
Wisdom				
Treatment	1	43392.15	22.472	.001
Wisdom	1	1562.50	< 1	NS
Interaction	1	7.96	< 1	NS
Within	98	1930.97		
Total	101			
Popularity				
Treatment	1	46048.31	26.248	.001
Popularity	1	6.86	< 1	NS
Interaction	1	3619.64	2.063	NS
Within	107	1854.34		
Total	110			

TABLE 31

OBSERVED NONINSTRUMENTAL BEHAVIOR BY TREATMENT AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	30085.55	18.951	.001
Mental status	1	5659.60	3.565	NS
Interaction	1	1959.30	1.234	NS
Within	118	1587.47		
Total	121			
Self consistency				
Treatment	1	35600.79	21.77	.001
Self consistency	2	1228.37	< 1	NS
Interaction	2	328.26	< 1	NS
Within	97	1662.52		
Total	102			
Self-esteem				
Treatment	1	34832.33	20.712	.001
Self esteem	1	3070.66	1.826	NS
Interaction	1	12.21	< 1	NS
Within	96	1681.71		
Total	99			
Health-energy				
Treatment	1	35558.28	21.484	.001
Health-energy	1	1.66	< 1	NS
Interaction	1	195.86	< 1	NS
Within	99	1655.09		
Total	102			

TABLE 31--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
		Evaluation		
Treatment	1	34406.77	20.155	.001
Evaluation	1	23.68	< 1	NS
Interaction	1	133.87	< 1	NS
Within	96	1707.15		
Total	99			
		Morale		
Treatment	1	34711.84	20.780	.001
Morale	1	99.13	< 1	NS
Interaction	1	2252.51	1.348	NS
Within	97	1670.42		
Total	100			
		Wisdom		
Treatment	1	34740.98	20.982	.001
Wisdom	1	1965.90	1.187	NS
Interaction	1	37.91	< 1	NS
Within	98	1655.75		
Total	101			
		Popularity		
Treatment	1	37425.88	24.875	.001
Popularity	1	192.39	< 1	NS
Interaction	1	3626.23	2.410	NS
Within	107	1504.54		
Total	110			

TABLE 32

CHANGE IN SELF CARE BY TREATMENT AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	2.00	< 1	NS
Mental status	1	4.70	< 1	NS
Interaction	1	21.04	2.119	NS
Within	118	9.93		
Total	121			
Self consistency				
Treatment	1	1.44	< 1	NS
Self consistency	2	1.65	< 1	NS
Interaction	2	29.11	3.576	.05
Within	97	8.14		
Total	102			
Self esteem				
Treatment	1	1.33	< 1	NS
Self esteem	1	8.89	1.066	NS
Interaction	1	40.00	4.797	.05
Within	96	8.34		
Total	99			
Health-energy				
Treatment	1	2.30	< 1	NS
Health-energy	1	3.30	< 1	NS
Interaction	1	20.71	2.495	NS
Within	99	8.30		
Total	102			

TABLE 32--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
Evaluation				
Treatment	1	1.70	< 1	NS
Evaluation	1	.65	< 1	NS
Interaction	1	1.73	< 1	NS
Within	96	8.74		
Total	99			
Morale				
Treatment	1	1.37	< 1	NS
Morale	1	.24	< 1	NS
Interaction	1	25.40	3.002	NS
Within	97	8.46		
Total	100			
Wisdom				
Treatment	1	2.06	< 1	NS
Wisdom	1	1.06	< 1	NS
Interaction	1	27.00	3.234	NS
Within	98	8.35		
Total	101			
Popularity				
Treatment	1	.36	< 1	NS
Popularity	1	1.58	< 1	NS
Interaction	1	25.52	3.327	NS
Within	107	7.67		
Total	110			

TABLE 33

CHANGE IN AGGRESSIVENESS BY TREATMENT AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	28.41	8.64	.01
Mental status	1	2.37	< 1	NS
Interaction	1	2.14	< 1	NS
Within	118	3.28		
Total	121			
Self-consistency				
Treatment	1	23.92	8.925	.01
Self consistency	2	11.45	4.272	.05
Interaction	2	5.94	2.216	NS
Within	97	2.68		
Total	102			
Self esteem				
Treatment	1	21.23	7.346	.01
Self esteem	1	12.51	4.294	.05
Interaction	1	.18	< 1	NS
Within	96	2.89		
Total	99			
Health-energy				
Treatment	1	21.76	7.856	.01
Health-energy	1	.23	< 1	NS
Interaction	1	17.71	6.394	.05
Within	99	2.77		
Total	102			

TABLE 33--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
Evaluation				
Treatment	1	21.90	7.399	.01
Evaluation	1	4.81	1.625	NS
Interaction	1	.07	< 1	NS
Within	96	2.96		
Total	99			
Morale				
Treatment	1	21.45	7.371	.01
Morale	1	3.40	1.168	NS
Interaction	1	4.43	1.522	NS
Within	97	2.91		
Total	100			
Wisdom				
Treatment	1	21.71	7.460	.01
Wisdom	1	.96	< 1	NS
Interaction	1	3.00	1.031	NS
Within	98	2.91		
Total	101			
Popularity				
Treatment	1	24.62	9.848	.01
Popularity	1	9.50	3.800	NS
Interaction	1	17.26	6.904	.01
Within	107	2.50		
Total	110			

TABLE 34

CHANGE IN INTEREST AND INVOLVEMENT IN SURROUNDINGS BY TREATMENT AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	4.62	< 1	NS
Mental status	1	4.84	< 1	NS
Interaction	1	3.68	< 1	NS
Within	118	6.17		
Total	121			
Self consistency				
Treatment	1	1.74	< 1	NS
Self consistency	2	.63	< 1	NS
Interaction	2	10.85	1.664	NS
Within	97	6.52		
Total	102			
Self esteem				
Treatment	1	.84	< 1	NS
Self esteem	1	10.07	1.544	NS
Interaction	1	19.96	3.061	NS
Within	96	6.52		
Total	99			
Health-energy				
Treatment	1	1.31	< 1	NS
Health-energy	1	.005	< 1	NS
Interaction	1	11.77	1.816	NS
Within	99	6.48		
Total	102			

TABLE 34--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
Evaluation				
Treatment	1	1.30	< 1	NS
Evaluation	1	1.11	< 1	NS
Interaction	1	25.01	3.818	NS
Within	96	6.55		
Total	99			
Morale				
Treatment	1	.38	< 1	NS
Morale	1	18.93	2.926	NS
Interaction	1	11.52	1.781	NS
Within	97	6.47		
Total	100			
Wisdom				
Treatment	1	1.08	< 1	NS
Wisdom	1	22.36	3.589	NS
Interaction	1	25.00	4.013	.05
Within	98	6.23		
Total	101			
Popularity				
Treatment	1	.57	< 1	NS
Popularity	1	1.69	< 1	NS
Interaction	1	24.14	4.092	.05
Within	107	5.90		
Total	110			

TABLE 35

CHANGE IN ORIENTATION BY TREATMENT AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	14.66	3.482	NS
Mental status	1	26.58	6.316	.05
Interaction	1	7.84	1.865	NS
Within	118	4.20		
Total	121			
Self consistency				
Treatment	1	13.95	3.419	NS
Self consistency	2	4.67	1.145	NS
Interaction	2	4.29	1.051	NS
Within	97	4.08		
Total	102			
Self esteem				
Treatment	1	12.67	3.144	NS
Self esteem	1	7.62	1.896	NS
Interaction	1	21.99	5.457	.05
Within	96	4.03		
Total	99			
Health-energy				
Treatment	1	12.65	3.100	NS
Health-energy	1	1.68	< 1	NS
Interaction	1	8.84	2.167	NS
Within	99	4.08		
Total	102			

TABLE 35--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
Evaluation				
Treatment	1	12.29	2.961	NS
Evaluation	1	6.68	1.610	NS
Interaction	1	9.11	2.195	NS
Within	96	4.15		
Total	99			
Morale				
Treatment	1	14.53	3.535	NS
Morale	1	2.54	< 1	NS
Interaction	1	13.02	3.168	NS
Within	97	4.11		
Total	100			
Wisdom				
Treatment	1	13.92	3.597	NS
Wisdom	1	19.83	5.124	.05
Interaction	1	17.88	4.620	.05
Within	98			
Total	101			
Popularity				
Treatment	1	19.46	5.162	.05
Popularity	1	8.46	2.244	NS
Interaction	1	2.09	< 1	NS
Within	107	3.77		
Total	110			

TABLE 36

CHANGE IN SOCIABILITY BY TREATMENT AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	.33	< 1	NS
Mental status	1	.16	< 1	NS
Interaction	1	34.15	15.670	.001
Within	118	2.17		
Total	121			
Self consistency				
Treatment	1	.29	< 1	NS
Self consistency	2	5.92	3.217	.05
Interaction	2	.56	< 1	NS
Within	97	1.84		
Total	102			
Self esteem				
Treatment	1	.36	< 1	NS
Self esteem	1	.44	< 1	NS
Interaction	1	2.57	1.318	NS
Within	96	1.95		
Total	99			
Health-energy				
Treatment	1	.39	< 1	NS
Health-energy	1	.63	< 1	NS
Interaction	1	.46	< 1	NS
Within	99	1.90		
Total	102			

TABLE 36--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
Evaluation				
Treatment	1	.42	< 1	NS
Evaluation	1	1.20	< 1	NS
Interaction	1	4.11	2.130	NS
Within	96	1.93		
Total	99			
Morale				
Treatment	1	.11	< 1	NS
Morale	1	9.56	5.112	.05
Interaction	1	.01	< 1	NS
Within	97	1.87		
Total	100			
Wisdom				
Treatment	1	.55	< 1	NS
Wisdom	1	8.14	4.400	.05
Interaction	1	1.60	< 1	NS
Within	98	1.85		
Total	101			
Popularity				
Treatment	1	.77	< 1	NS
Popularity	1	1.45	< 1	NS
Interaction	1	.27	< 1	NS
Within	107	1.76		
Total	110			

TABLE 37

CHANGE IN SCHIZOID SYMPTOMS BY TREATMENT AND PERSONALITY: ANALYSIS OF VARIANCE TABLES

Source	DF	Mean square	F ratio	Significance
Mental status				
Treatment	1	12.58	4.765	.05
Mental status	1	4.14	1.568	NS
Interaction	1	1.37	< 1	NS
Within	118	2.64		
Total	121			
Self consistency				
Treatment	1	14.35	5.541	.05
Self consistency	2	.88	< 1	NS
Interaction	2	2.31	< 1	NS
Within	97	2.59		
Total	102			
Self esteem				
Treatment	1	13.41	5.198	.05
Self esteem	1	1.12	< 1	NS
Interaction	1	9.06	3.512	NS
Within	96	2.58		
Total	99			
Health-energy				
Treatment	1	13.87	5.779	.05
Health-energy	1	16.61	6.921	.01
Interaction	1	5.85	2.438	NS
Within	99	2.40		
Total	102			

TABLE 37--(CONTINUED)

Source	DF	Mean square	F ratio	Significance
Evaluation				
Treatment	1	13.58	5.125	.05
Evaluation	1	1.47	< 1	NS
Interaction	1	4.97	1.875	NS
Within	96	2.65		
Total	99			
Morale				
Treatment	1	14.03	5.567	.05
Morale	1	.22	< 1	NS
Interaction	1	14.31	5.679	.05
Within	97	2.52		
Total	100			
Wisdom				
Treatment	1	13.95	5.449	.05
Wisdom	1	6.21	2.426	NS
Interaction	1	.12	< 1	NS
Within	98	2.56		
Total	101			
Popularity				
Treatment	1	12.60	5.625	.05
Popularity	1	16.61	7.415	.01
Interaction	1	5.09	2.272	NS
Within	107	2.24		
Total	110			

APPENDIX III

DETAILED INFORMATION ON FACTOR STRUCTURES FOR THE WARD BEHAVIOR RATING AND THE SEMANTIC DIFFERENTIAL MEASURE OF SELF CONCEPT

TABLE 38

FACTOR LOADINGS AND COMMUNALITIES FOR SEMANTIC SELF CONCEPT FACTOR STRUCTURE, VARIMAX ROTATION

Items	Factors					h^2
	Health energy	Evaluation	Morale	Wisdom	Popularity	
Young-old	.42	.02	.14	.21	.04	.24
Energetic-tired	.70	.01	.16	.15	.04	.53
Healthy-sick	.77	.16	.23	.00	.02	.68
Active-passive	.58	.07	.13	.26	.27	.50
Useful-worthless	.62	.15	.01	.22	.39	.61
Strong-weak	.75	.05	.21	.06	.02	.61
Pleasant-unpleasant	.36	.46	.21	.24	.26	.52
Kind-cruel	.15	.48	.09	.13	.22	.33
Friendly-unfriendly	.23	.51	.05	.06	.36	.44
Careful-careless	.05	.51	.11	.16	.04	.30
Religious-not religious	.04	.41	.06	.17	.23	.25
Quiet-loud	.10	.38	.08	.04	.11	.17
Honest-dishonest	.14	.48	.00	.02	.14	.27
Good-bad	.17	.51	.09	.11	.11	.32
Happy-sad	.35	.02	.64	.11	.14	.57
Not worried-worried	.27	.06	.72	.03	.11	.60
Nervous-relaxed	.44	.15	.52	.04	.16	.51
Wise-foolish	.17	.19	.13	.55	.21	.43
Quick-slow	.24	.14	.07	.51	.10	.36
Wanted-unwanted	.11	.15	.21	.02	.63	.47
Popular-unpopular	.08	.23	.27	.22	.56	.50

TABLE 39

FACTOR LOADINGS AND COMMUNALITIES FOR WARD BEHAVIOR RATING FACTOR STRUCTURE, VARIMAX ROTATION

Items	Factors						h^2
	Self care	Aggres-siveness	Interest and involve-ment	Orienta-tion	Socia-bility	Schiz. sympt.	
Eating	.65	.10	.07	.23	.27	.00	.71
Toilet	.73	.14	.23	.23	.06	.01	.76
Bathing	.71	.05	.23	.19	.07	.05	.95
Grooming	.88	.09	.22	.18	.06	.02	.99
Dressing	.84	.01	.21	.36	.08	.08	.99
Cooperativeness	.68	.05	.10	.04	.07	.14	.79
Assaultiveness	.11	.54	.05	.21	.00	.19	.55
Cursing	.03	.99	.02	.09	.01	.03	.99
Irritability	.10	.60	.14	.15	.08	.12	.65
Demanding	.08	.43	.17	.01	.19	.05	.52
Activities on ward	.31	.08	.46	.17	.19	.02	.65
Rate of motion	.16	.08	.42	.08	.02	.20	.44
Interest in surroundings	.22	.03	.92	.15	.12	.03	.99
Ward work	.27	.02	.43	.10	.05	.00	.96
Confusion	.34	.11	.17	.90	.02	.01	.99
Sensibility	.27	.35	.25	.52	.02	.03	.92
Need for psychiatric care	.19	.25	.29	.39	.06	.17	.57
Mobility	.29	.18	.16	.30	.03	.12	.80
Change in psychiatric cond.	.12	.07	.38	.39	.04	.08	.50
Relations with patients	.33	.06	.36	.09	.74	.00	.83
Relations with staff	.33	.07	.31	.01	.75	.08	.83
Hallucinations	.21	.12	.09	.01	.00	.69	.59
Fearfulness	.14	.13	.28	.02	.12	.67	.62

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