THE TEMPORALITY OF ALCOHOLICS

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
TOM BATCHELDER
1977

ABSTRACT

THE TEMPORALITY OF ALCOHOLICS

By

Tom Batchelder

This study compared a sample of alcoholics with a sample of nonalcoholics on measures of a number of aspects of temporality, the manner of relating to time. In general it was predicted, on the basis of a developmental, motivational theory of alcoholism, that the alcoholics would manifest a temporality very different from that of nonalcoholics. Nine specific hypotheses were proposed:

I. Alcoholics are more oriented toward "timeless", unchanging states than nonalcoholics.

II. Alcoholics are less oriented toward the future than nonalcoholics.

III. Alcoholics are more oriented toward the present than nonalcoholics.

IV. Alcoholics project a more passive future than nonalcoholics.

V. Alcoholics see the present in a more passive way than nonalcoholics.

VI. Alcoholics are more oriented toward the past than nonalcoholics.

VII. Alcoholics integrate the past, present, and future to a lesser degree than nonalcoholics.

VIII. Alcoholics conceptualize shorter spans of time than nonalcoholics.

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IX. Alcoholics' conceptions of spans of time are less finely subdivided into discrete events than nonalcoholics'.

The alcoholic sample consisted of 15 male inpatients hospitalized with a primary diagnosis of alcoholism at the Ann Arbor VA Hospital. The comparison group consisted of 15 male inpatients from the medical wards of the same hospital. In addition to medical records, a questionnaire concerning significant familial, legal, medical, and employment problems associated with drinking was used to differentiate the two groups. Controls for length of hospitalization, age, educational level, intellectual level, employment status, and marital status were employed.

Each subject was asked to write out a story to each of five TAT cards. Scores relevant to each of the hypotheses were derived from the stories. Although the interrater reliabilities for Hypotheses IV, VII, and IX were only 0.584, 0.755, and 0.684 respectively, the other scores were much more reliable, and the specially designed rating procedure was judged to be generally successful.

The results supported only Hypotheses I and II; alcoholics were found to be more oriented toward "timeless" states, and less oriented toward the future than nonalcoholics. Although these results may reflect the effects rather than, as suggested by our theory, the underlying dynamics of alcoholism, it was suggested that, in either theoretical interpretation, the findings imply important practical problems for the alcoholics.

Of the seven hypotheses not supported by the data, one should be singled out here for special attention. In three previous investigations alcoholic subjects were found to conceptualize significantly shorter spans of time than nonalcoholics. It was suggested that the failure to replicate these results reflected the more elaborate controls in the present investigation, and that, therefore, the previously accepted conclusions regarding the time perspectives of alcoholics are unwarranted.

In general, it may be concluded that alcoholism does have a significant influence on temporality, but not in nearly as many ways as would be predicted from a consideration of alcoholics' dynamics. This study does not, however, bear directly on the validity of the various dynamic theories of alcoholism. Other aspects of temporality related more directly to these theories might still prove to differentiate alcoholics from nonalcoholics; in the discussion of the results, suggestions are made along this line. It was further suggested that at least some of the results of this study might be different among alcoholics of a different age group.

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By

Tom Batchelder

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Psychology

1977

To Anne Winston, in appreciation for all the work, sacrifice, understanding, warmth, and love she has put into this thesis.

ACKNOWLEDGMENTS

Dr. Albert I. Rabin, the chairman of my committee, has helped me in an unusually broad range of ways. His articles stimulated my initial interest in temporality before I had even met him. He has been able and always willing to make helpful comments on a diversity of points that were troubling me, ranging from some of the most basic concepts to the most mundane stylistic points. His gentle pressure encouraged me to complete this work without stirring up any of my "anal" stubbornness.

These points, important as they are, only begin to suggest Dr. Rabin's influence on me and on this thesis. Insofar as this work fulfills my ambition to cast a diversity of insights, including phenomenological and poetic, into an empirical framework, it has been nurtured and inspired by my growing appreciation of Dr. Rabin's character as a psychologist. He is a broadly cultured intellectual, with a respectful interest in the diversity of viewpoints that have been applied to the study of man, and yet he is also a very "down-to-earth" person, for whom the actual lives of individual people seem always to take precedence over the elegant and intellectually profound conceptualizations which he can generate. Dr. Rabin is, of course, a highly respected psychologist, but what I want to acknowledge here is that his influence is much deeper and

more personal than what might routinely be expected from such a leader: for me, he has served not only as a standard, an inspiration, and a very helpful advisor for my intellectual work, but also as a model of how a psychologist can integrate his work into a thoroughly decent and humane character structure.

Thanks also to the other members of my committee. Dr. Joel Aronoff took the time to read the proposal, and later drafts very carefully, and his informed and intensive questioning helped me learn much more than I would otherwise have learned from this thesis. Not only did I gain from him numerous specific ideas and suggestions, but, more importantly, his intense approach helped me to take more seriously and find much more interesting what, at times, threatened to become a tedious exercise, a mere requirement.

Dr. Bertram Karon has the rare combination of profound clinical knowledge, and statistical expertise. Both of these helped me produce this thesis: his course on the TAT gave me a strong interest in the instrument, and his incisive comments helped resolve many of my perplexities concerning statistics and research design.

So many people at the Ann Arbor VA Hospital helped me in doing this research that I cannot possibly name them all. Doctors and nurses were consistently cooperative in taking time from their extremely busy schedules to help me procure subjects. Dr. Phillip Kroll deserves special thanks in this regard. Larry Obrist was also

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very helpful. For these professionals, cooperation was perhaps facilitated by their previous acquaintance with research. For the men who served as subjects, however, no such explanation is plausible. They agreed to participate merely on the necessarily vague promise that they might help us "to learn a little more about how the human mind works." They continued to participate even after the somewhat intrusive questions about their drinking, after their self-esteem was assaulted by the very difficult vocabulary test, and through the probably threatening and mysterious projective test. Perhaps the best token of appreciation for their work is to print and remember the explanation many of them offered for their participation: "If this might help other people, I'll be glad to do it."

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If you would not feel the horrid weight of Time, that breaks your shoulders, bending you toward earth, relentlessly you must get drunk.

C. Baudelaire, 1971, p. 28

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INTRODUCTION

Numerous empirical researchers, clinical observers, and theorists have suggested that temporality, the manner of relating to time, is significantly affected by diverse forms of psychopathology. As our epigraph implies, there may be an important relationship between time and the intoxication produced by alcohol, and, thus, an important relationship between temporality and alcoholism. In fact, there are intriguing suggestions in the clinical literature that various aspects of temporality might be significantly different in the alcoholic. There are also a few, not very well controlled empirical studies supporting some of these suggestions. The present study was designed to examine, in a more controlled way, a broad range of possible aspects of alcoholic temporality.

The line from Baudelaire relates intoxication and time in terms of motivation: a purpose, a goal in "getting drunk," it is suggested, might be to escape the "horrid weight of Time." We will pursue this lead by examining the literature on the motivational dynamics of alcoholism to see what implications there may be for temporality. Modern dynamic theories of alcoholism, as of other conditions, are distinguished by their developmental focus. Adult dynamics, this perspective suggests, do not suddenly appear in adulthood, but rather reflect the particular experiences accumulated through the history of the individual. Thus, part of our search for

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testable hypotheses concerning alcoholic temporality will involve a review of the developmental experiences of the alcoholic.

To broaden our understanding of temporality and to aid us in later searching for aspects of alcoholic temporality, we will first review some of the considerable body of literature on temporality.

TEMPORALITY

Introduction

Human temporality, man's multifaceted relation to time, is an increasingly significant, broad, and viable area of psychological research. The study of the perception of time has a long history in psychology, but in recent years considerable attention has also been focused on more molar aspects of temporal experience, especially in relation to psychopathology. The clinical literature has long contained intriguing observations of such aspects of temporality as: the relative importance and different functions (healthy and pathological) of past, present, and future; the symbolic meaning of time; the "flow" of time (it may seem to accelerate, slow down, or even stop); the retreat from normal time into timeless states; and, the different attitudes assumed toward time. Experimental research attempting to document and explore these broader aspects of temporality has proliferated in recent years.

Before reviewing some of this literature, we should address an important preliminary question: what are we to understand as the place of temporality in the personality? For the existentialists, "temporality becomes a basic coordinate upon which the greatest emphasis is laid" (Ellenberger, 1958, p. 101). In Sartre (1966)

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and Heidegger (1962) man is depicted as most basically a temporal being; the relation between past, present, and, most importantly, future is seen as the foundational structure of human existence, and as differentiating man from other beings. Applying this philosophy to psychiatry, Minkowski (1970) claimed that disturbed temporality is the basic "generating disorder" behind the various symptoms of psychopathology. Straus (1966) and von Gebsattel (1958) have attempted similar analyses.

Viewed historically, this idea of the preeminent importance of temporality might be seen as a reaction to the omission of important facets of temporality from the prevailing views of man. Ellenberger (1958, p. 101) noted that in common clinical practice temporality was considered only in terms of disorientation, speed of mental operations, and, sometimes, perception of duration. Such broader aspects of temporality as the person's conception of his future, or his degree of integration of his past, present, and future were not much considered by clinicians or theorists.

Within mainstream psychology too, however, there were reactions to this omission. In his 1958 critique of psychology, Allport, for example, criticized "the prevalent tendency to explain all mental states exclusively in terms of past occurrences," and he called for a broader consideration of temporality, and especially for a greater focus on the future. Man's future orientation, he said, "distinguishes the human being from the animal, the adult

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from the child, and in many cases the healthy personality from the sick" (1958, p. 51).

Allport here sounds very similar to the existentialists, but there is an important difference. Later in his book (pp. 54-56), he makes it very clear that the temporal factors he discussed, important as they are, are simply aspects, among a number of other aspects, of one of a number of structures of the psyche. In contrast to the existentialists, Allport stresses the importance of temporality without portraying it as the central core of personality.

Much of the literature we'll review in this section is compatible with Allport's conception of the place of temporality in the personality. Temporality emerges as one important aspect of ego functioning, and is only rarely depicted as the crux of personality.

Viewing temporality as an aspect of ego functioning suggests an important topic which was not considered by the existentialists: the developmental history of temporality. With a developmental theory, we might be able to account for some of the observed variations in adult temporality, and to predict the presence of more covert variations. Much theory and research has, in fact, accumulated concerning the development of normal temporality, and we will review some of it in this section. Then we will review some of the developmental experiences which have been suggested as possible causes of the variations in adult temporality. Finally, we will briefly sketch some of the work that has been done on temporality in psychopathology.

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Development of Normal Temporality

Despite persisting questions concerning some of the details, the general notion that temporality develops gradually as the individual matures has been amply documented. Furthermore, time is not, as Kant maintained, "an á priori form of sensibility," but rather is learned in the process of interaction between the individual and his environment. From their respective patterns of interaction, different individuals may learn different temporalities, and, thus, the potential is present for pathological forms of temporality.

The normal development of temporality seems to be a gradual progression from the narrow egocentricity of infancy to an increasingly broad and articulated view of time (Lewin, 1935; Fraisse, 1963). According to some observers, a very rudimentary sense of time develops in the first months of life in connection with the experienced rhythms of biological processes such as breathing and pulse (Oberndorf, 1941, p. 142; Fenichel, 1945, p. 282). Yates (1938) suggests that the periodicity of hunger and feeding is a most important factor in this early appreciation of temporal rhythm. The next stage of development may be seen as one important aspect of the shift, described by Freud (e.g., 1946) and elaborated by, e.g., Rapaport (1951), from the primary process to the secondary process of mental functioning. The young infant lives primarily in a world of the present; need and satisfaction occur relatively simultaneously, and when they do not, there is recourse via the

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primary process to imagined satisfaction. Frustration in the form of delay of gratification soon increases, however, beyond the regulating capacity of the wish-fulfilling apparatus. The resulting increases of need tension could be catastrophic experiences for the young organism, but normally this calamity is prevented by the increasing capacity of secondary-process thinking. Secondary-process thinking can sustain the child through periods of delayed gratification because it allows him to foresee a <u>future</u> gratification. Thus, with the beginning maturation of this capacity, an important element of temporality, the sense of a future, begins to develop.

This broadening of the temporal horizons will normally continue as the child matures. Ames (1946) found such a progression in children's use of temporal words. Words signifying the present were used first (24 months), then words indicating the future (30 months), and by six years these children could use the names of the seasons appropriately. Similarly, studies by Melikan (1959) and Mischel and Metzner (1962) suggest that a child's capacity to delay a present gratification for the sake of a greater future reward increases as the child grows older (to 12 years in these studies).

Some writers attach a special importance to the anal period. Harnik (cited in Fenichel, 1945, p. 282) and Dooley (1941) maintain that this is the crucial stage in the development of temporality. Time does become important in a number of ways during toilet training: frequency of defecation, postponement of defecation, length of time on the toilet--in all of these time is an important factor.

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Other theorists, however, noting the importance of earlier and later developments, assign the anal period a special, but not preeminent role. Thus, Fenichel (1945, p. 282) suggests that the significance of the period for the development of temporality lies in the beginning of the capacity to use reality-mastering schedules.

The resolution of the Oedipal complex marks an important advance in temporality, especially in regard to the imagined future. The advances in linguistic ability that have occurred by then allow a much greater symbolic control over time (Cottle & Klineberg, 1974, p. 72), but there is also a new institution in the psyche which gives a greater impetus to the future orientation. This new factor is the product of the Oedipal complex, the superego. Oberndorf (1941) traces the genesis of future-oriented, purposive striving to the parental identifications forming the superego. Erikson (1963, p. 258) similarly states that the Oedipal stage "sets the direction toward the possible and the tangible which permits the dreams of early childhood to be attached to the goals of an active adult life." This increased sense of the future will remain largely fantasy, however, relatively unconstrained by reality considerations, until the cognitive advances of adolescence (Cottle & Klineberg, 1974, p. 72). Still, there has been an advance in the realistic sense of the future, for Stone and Church (1968, p. 325) report that, in their play patterns, children of this age can, for the first time, "engage in planned projects extending over many days."

In their review of the literature, Wallace and Rabin (1960) suggest that the adult conception of time does not appear until the

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thirteenth or fourteenth year. By this age the developing person has advanced cognitively to formal operations (Inhelder & Piaget, 1958), and this development allows an advance in his temporality. Previously, although the sense of the future was progressively developing, it was either still bound to the concrete possibilities of present situations, or it reflected fantasies relatively unrelated to present actualities. Now, with the abstractive abilities of the stage of formal operations the adolescent is able to conceptualize time as (in our culture) an abstract continuum, overarching all the previously separate concrete projects and memories (Piaget, 1969). Furthermore, the cognitive advances allow the adolescent to project into his future the realistic possibilities he can generate from his present and past experience (Cottle & Klineberg, 1974). Thought is no longer confined to current situations and imaginative wish fulfillment, but can now also serve the developmental task of generating long-range plans for future identity. Thus, early adolescence establishes the foundation in temporality for the achievement of ego-identity. In the new sense of time as an integrated life span, and in the new capacity to generate realistic images of the personal future, the stage is set for the development of a sense of a "progressive continuity between that which [one] has come to be during the long years of childhood and that which [one] promises to become in the anticipated future" (Erikson, 1964, p. 91).

Klineberg (1967) reports an interesting experimental study of this adolescent stage of the development of temporality. (Additional relevant research is cited in Cottle and Klineberg (1974)).

He found that adolescents (ages 13-16) did, in fact, have more realistic conceptions of their future than did children (ages 10-12). Moreover, he found that, while children who were relatively involved in the present tended to be less oriented toward the future, adolescents tended, as predicted, to integrate their present and future to a greater degree; i.e., adolescents who were involved in the present were also oriented toward distant future events and vice versa. Finally, whereas unhappy children tended to project pleasant wish-fulfillments into the future, unhappy adolescents, because of their increased temporal integration, tend to avoid thinking of the future, which for them would realistically reflect their present unhappiness.

The normal developmental progression through adolescence culminates in a sense of identity which integrates past, present, and future, and which is sensed as a movement toward future goals via present actions. Thus, Fraisse states that the "normal attitude of man is oriented toward the future" (1963, p. 198). This "normal" attitude, however, must also ground the future realistically in the past and present, for, otherwise, the future remains that of childhood, relatively unconstrained by reality considerations. Given this grounding, however, most writers agree that the normal development does produce a future-oriented temporality. Even within the general bounds of psychological health greater degrees of adjustment may be related to increasing development of the sense of the future. Epley and Ricks (1963), for instance, found that, in a group of "healthy, superior adults," those with longer future

time perspectives: had better grades; were less anxious; and were more empathic and more involved with other people.

Development of Abnormal Temporality

The very length of time required for the normal development would seem to allow numerous problems to arise, and, judging from the literature on temporality in psychopathology, there must, indeed, be a wide variety of possible malignant influences. Before we review some of the literature on psychopathology, we will list some of the factors that have been suggested as causes of disturbed temporality. A prefatory caution first, however: in contrast to the general theory of development, there is, thus far, not much experimental evidence supporting (or refuting) the clinically derived theories of the development of individual differences in temporality. In his major review, Doob (1971, p. 218) said in this connection that we do not "know in detail exactly how early experience becomes internalized so that it later affects temporal behavior; we are convinced only that in some way it does."

There are a number of suggestions of possible pathological developments originating in the oral period. Yates (1938) says that "where there is a gross disharmony between the child's time and the mother's time in relation to early need satisfaction, a degree of aggression is aroused which influences all subsequent time relationships" (p. 354). When even this aggression is not effective in procuring satisfaction, she suggests that withdrawal into timeless psychosis may result.

In order for the secondary-process ability to anticipate future satisfaction to develop, Hartocollis (1974, p. 250) suggests that the infant must have developed an adequate sense of object constancy. Lack of such a sense might, therefore, handicap the development of the future perspective. One of the few empirical studies in this area seems to support this hypothesis. Goldfarb (1945) found that children who, during the first three years of life, were in institutions where they could not maintain consistent close relationships with adults almost uniformly manifested shortened time perspectives and lack of planning abilities during adolescence.

The opposite extreme of parenting behavior during the oral period may also be prejudicial to the development of temporality. Drawing from Bergler and Róheim's (1946) suggestion that a too ready gratification of the infant's needs might obviate the need for him to develop a sense of the future, Zern (1970) hypothesized a negative relation between early patterns of indulgence, and structuring of time in adolescence. He found that highly indulged infants did, in fact, have a less structured sense of time in adolescence than did less consistently, punctually, and liberally indulged infants. As we suggested earlier, it seems that some frustration is necessary to push the infant into developing his sense of the future.

A number of writers have interpreted adult attitudes toward time schedules and clock time as reflective of developments during the anal period (e.g., Dooley, 1941). Fenichel (1945, p. 282) suggests that tardiness, for example, may in some cases be motivated

by the desire to reexperience the pleasure derived from retaining feces. Aspects of the Oedipal resolution may likewise be expressed in disturbed adult temporality. Oberndorf (1941) traces a patient's inability to act in the present to a feminine superego which approved only future planning and ruminations on the past.

Temporality in Psychopathology

Although many observers (e.g., Israeli, 1936) suggest that there are distinct disturbances of temporality characteristic of specific forms of psychopathology, Doob's (1971) review counsels a more cautious approach. Doob stresses the prevalence of individual differences, both within diagnostic categories and between clinical observers. Still, he does acknowledge that clinicians do find some form of temporal abnormality in many psychopathologies. We will review a few of the areas in which there do seem to be consistent, significant disturbances.

Depression. Straus (1966) maintains that in depressive states personal time slows to such a degree that the normal movement into the future may seem to be blocked. Dubois (1954), somewhat similarly, says the depressive finds no reason to act in the present because of a blocked future and a dismal past. Dilling and Rabin (1967) provide some empirical support for these clinical observations. They found that the extension of the depressive's future time perspectives was shorter than that of either schizophrenics or psychologically normal, hospitalized patients. The research also found that the depressives were significantly less future oriented than

the normal control group, as measured by the direction of temporal orientation of stories told in response to TAT cards.

Psychopathy. Buss (1966) suggests that one of the basic characteristics of the psychopath is an inability to bind time: "he has no sense of time, especially of the future; he senses only the here and now" (p. 435). Hare (1970) likewise suggests, on the basis of a review of the physiological and learning experiments, that "neither rewards nor punishments exist for the psychopath when they are too far in the future" (p. 35). Friel and Aboritz (1968) found that in telling stories about TAT cards psychopathic prisoners tended to use fewer verbs in the past tense and more in the present tense than did non-psychopathic prisoners. In contrast to what would seem a logical implication of Hare's statement, the experiment did not find that the psychopaths used significantly fewer verbs in the future tenses. The investigators attribute this latter finding to the overarching depressive effects of prison life on both groups.

Compulsiveness. A number of writers have noted that compulsive individuals often manifest distinctive forms of temporality. Fenichel (1945) says that "neurotic disturbances in the practical use of time and time systems" are especially characteristic of compulsives (p. 283). They may, for instance, be "stingy or prodigal or both alternately" with their time; "they may be punctual or unpunctual; they may sometimes be accurate to the fraction of a minute, and at other times grossly unreliable" (p. 282).

Dooley (1941) has catalogued a number of the defensive functions of an obsessive preoccupation with objective, "clock time".

Sometimes such a preoccupation "breaks reality down into small, manageable units" "as a defense against the too massive impact of the external world," but in most cases it reflects a "fear of being submerged into the unconscious." More specifically, losing track of time means a "loss of the world of objects," and a consequent eruption of overwhelming instinctual forces (p. 20).

Anxiety. While temporality and anxiety are intimately related in many accounts, the relationship is evidently a complex one. Since anxiety presumably refers to future events, we might expect that anxiety would correlate positively with future orientation. Lipman (1957), in fact, found such a positive relationship between manifest anxiety and future orientation among a group of college students. Siegman (cited in Cottle & Klineberg, 1974, p. 28) found a positive correlation between manifest anxiety and projected time span in story-completions. He interpreted this finding as support for his assumption that "the more one's psychological life space extends into the future, the greater the uncertainty, and therefore, the greater the anxiety."

Sullivan (1953, p. 44) on the other hand, suggests that anxiety constricts the temporal perspective, and "can almost be said to cut off foresight." Similarly, Arieti (1947) noted that, although anxiety is dependent on anticipation, many anxious people seem less concerned with the future than with the past. He suggested that the highly anxious person is still unconsciously concerned with his future, but consciously focuses on the present and the past as a defense against this anxious concern.

Ruiz and Krauss (1968) report what may be a crucial finding in this connection. They tested 64 newly admitted mental patients for manifest anxiety and temporal orientation as measured by the verb tenses used in completing a set of sentence stems. The results showed a curvilinear relationship between anxiety level and present plus future tense usage: the low anxiety group was least present and future oriented; the moderate anxiety group used the most verbs in present and future tenses; and the high anxiety group reverted to a lower usage of present and future tenses.

It seems then that both of the suggested relations between anxiety and temporal orientation may hold. Up to a certain level, increasing anxiety may indicate an increasing degree of orientation toward the future. Excessive anxiety may, however, as Sullivan and Arieti suggest, force a retreat of focus from the future to the comparatively safer past.

Schizophrenia. Research suggests that schizophrenia affects a number of aspects of temporality (see, especially, Dilling and Rabin, 1967). In relation to the present investigation, perhaps the most pertinent finding is that reactive schizophrenics evaluate timeless words, such as "eternity," more positively on semantic differential scales than either nonpsychiatric patients or process schizophrenics (Brand, 1975). Brand interprets this finding as reflective of the reactive's desire to escape from reality.

ALCOHOLISM

Introduction

Alcoholism is quite a major problem, both in terms of the individual lives affected, and in terms of its nationwide and worldwide prevalence. If there can be any readers skeptical of the first claim, they should be converted by Mahoney's (1975) heart-rending account of her husband's alcoholism and its effect on her and her children. In addition to its huge psychological, social, and economic costs, alcoholism contributes to many physical illnesses. "In untreated alcoholics, the life span is shortened by 12 years and the suicide rate is 58 times that of the normal population" (Fox, 1967, p. 329).

Estimates of prevalence depend, of course, on the particular definition of alcoholism and the sampling procedure used, but even a conservative approach suggests that there were about 4.5 million alcoholics in the United States in 1960 (Keller, 1962). Employing the broader concept of "problem drinkers," but sampling only adults living in households, Cahalan (1970) found that 9% of his nationwide sample had significant problems related to their drinking. Mahoney's book demonstrates, furthermore, that prevalence estimates do not, by themselves, give a complete reflection of the total magnitude of the problem. Consideration of the families, friends,

employers, and so on of the alcoholics would raise the estimated number of sufferers considerably.

The prevalence figures suggest one of the major problems involved in research on alcoholism. Alcoholics obviously must come in many different forms, and so definitions and research samples may, with some justification, vary greatly. Furthermore, a number of studies (reviewed by Walgren & Barry, 1970) have shown that alcoholism typically progresses through a number of different stages. Research findings obtained from samples of alcoholics at one stage might be different from those obtained at a different stage. Another related problem is that there is a continual controversy concerning the basic nature of alcoholism. Some authorities (e.g., Jellinek, 1960) maintain that it is a disease. Another respected authority (Button, 1956, p. 458) says it is "not a disease," but rather "a concommitant of a psychophysiological condition, occasionally only an apparently arbitrary concommitant." Furthermore, sociological factors are so important that one expert can state that the "nature of alcoholism shows marked differences throughout the world" (Jellinek, 1962, p. 383).

We will consider some of these complexities in a later section when we propose our own operational definition. At this point we need merely point out that, while this complicated picture may, indeed, mean that "there is no single personality configuration in alcoholism" (Chafetz, 1967, p. 1018), there may still be important consistencies among many alcoholics. The latter possibility, in fact, seems to be confirmed by the literature. Despite the

complexities of definition, of stages of development, of intertwining sociological, physiological, and psychological factors, a fairly consistent and plausible theory of the psychology of alcoholism emerges from the literature.

This is not the most prevalent view of the literature, however. A first reading of the voluminous research and theory suggests a cacophony of dischordant theories and contradictory facts. Studying different types and stages of alcoholism, using different research tools, and interpreting their results from diverse theoretical perspectives, writers have produced what seem to be widely divergent theories. Recognition of the role of these differing perspectives resolves the apparent dischord into a relatively harmonious, though multifaceted theory.

Most of these different theories can be seen as variations on three basic themes. Most deal with conflicts over dependency, aggression or sexual identity. Such conflicts have, of course, been implicated in the development of other forms of psychopathology as well, and criticism has often focused on this lack of specificity (e.g., Mowrer, 1959). In his comprehensive presentation of psychological factors, Button (1956, p. 672) explicitly warns that the "same constellation of factors might very well result, in another person, in nonalcoholic behavior." In a major review article, Blum (1966) also concedes this point, but goes on to argue that it is not a significant failing. She says that alcoholism may be one of those diseases which can best be explained by "clusters of pathogenic factors whose operations are specified only in terms of probability

statements" (p. 286). F. Alexander (1963) also notes that, while the psychodynamics of alcoholism are "well established," they are not sufficient to account for the actual appearance of the disease. He suggests that alcoholism can only be explained by an interaction of the psychodynamics with sociological and physiological factors. Thus, again, the lack of specificity is not a strong criticism as long as the described psychodynamics are not presented as necessary and sufficient causal factors.

Psychological Factors: Oral Dependency

From Freud's early clinical observations (cited in Chafetz & Demone, 1962, p. 39) to the large-scale, well controlled research projects of recent years (e.g., W. & J. McCord, 1960) dependency stands out as the most salient and influential of the psychological factors in alcoholism. Drinking can provide a special gratification for the very dependent personality. In Levy's (1958, p. 653) words: "from outside himself, comes pleasure . . . and now he can give up willing and striving. Things will happen to him for which he bears no responsibility. He reaffirms his wavering faith . . . that there is a force in the world to provide succor."

The passive gratification from alcohol is not the only manifestation of inordinate dependency in alcoholics. Rather, dependency is a prominent general characteristic influencing many aspects of his functioning. Kessel and Walton (1969) report that the alcoholic tends to rely excessively on others, especially in crisis situations. In their families alcoholics tend to take a passive,

dependent role (W. & J McCord, 1960). The McCords also found that their alcoholic subjects exhibited more dependent behaviors such as "overt seeking for comfort, care, and direct guidance" than did nonalcoholics. Perry, et al. (1970) found that alcoholic subjects scored significantly higher than normals on a scale of the MMPI constructed to measure dependency as a characteristic mode of functioning. Even perception seems to be affected by this dependency. Witkin, et al. (1959) report that alcoholics are significantly more dependent on external, contextual cues in their perceptual judgments than normals.

Psychoanalytic theorists have explained this dependency of alcoholics as the result of a fixation at or a regression to the oral stage of infancy. Knight (1937) identified, in a sample of 70 alcoholics, a specific family constellation which led to a fixation at the oral stage. The mother in these families was found to be overly indulgent of the child, while the father provided a highly erratic pattern of alternating gratification and denial. Subsequent writers have described other family constellations, but the majority find some special stress during the oral stage: either excessive indulgence, excessive deprivation, or erratic alternation between the two (Blum, 1966; Chafetz & Demone, 1962).

This oral fixation is manifested in the adult by the strong and extensive influence on his personality of the characteristics of the oral stage. Fenichel (1945) summarizes this influence. The chief concern of the orally dominated person is the acquiring of those rewards associated with the oral stage: the simultaneous

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erotic gratification and sense of security and self-esteem derived from sucking milk at the mother's breast. The orally dominated alcoholic, thus, seeks a passive and dependent role; he seeks to receive his necessary supplies and satisfactions from an outside source. The infant needed these supplies for his very existence, and this imperious quality of the need is seen, too, in the oral personality. The possibility of not receiving his "narcissistic supplies" represents such a basic threat that delay or frustration arouse unusual anxiety and aggression. Thus, we see the origin of the oft-mentioned impatience (e.g., Bergler, 1939) and impulsivity (e.g., Jones, 1965) of the alcoholic; like the infant, the alcoholic needs his gratifications immediately.

Alcohol is uniquely satisfying to the oral dependent person for a number of reasons. Menninger (1938, p. 181) suggests that it supplies "oral love," "symbolically, in the form of a precious liquor taken by mouth," and "actually, in the form of conviviality and sentimentality which accompany social drinking." Rado (1926) suggests that in its combination of psychological and physiological affects, alcohol may reproduce what he calls the "alimentary orgasm" obtained by the infant in sucking milk. Also, of course, there is the passive mode of acquiring these satisfactions we described earlier.

In recent years more experimental evidence has accumulated for this clinically derived theory. Machover and Puzzo (1959), using projective and psychometric tests, found that alcoholics manifested a high degree of oral dependency. Similarly, Bertrand and

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Masling (1969) found that alcoholic subjects gave significantly more oral dependent Rorschach responses than a group of control subjects matched for age, IQ, education, and diagnosis. In a cross-cultural study of 139 societies, Bacon et al. (1965) report that those societies which were relatively indulgent of dependency needs had lower rates of drinking and inebriety.

The psychodynamic theory of alcoholism, with its stress on a dependency rooted in a basic oral character structure, seems plausible and well documented, as we have presented it thus far. Both simple observation and other trends in the literature suggest that the picture is not this simple, however, Popular opinion hardly sees the "hard drinker" as the passive, dependent character we have portrayed him to be. Rather, such phrases as "he can really hold his liquor," "he can drink anyone under the table," "can beat any man in the house," and "feel ten feet tall" suggest that we see the heavy drinker as an especially powerful, rugged, and strong man.

Some research too seems to suggest exactly the opposite of our oral dependency theory. Kline's (1972) review suggests that one aspect of the McCords' (1960) study casts the "strongest doubt on the psychoanalytic theory of drinking" (p. 294). The McCords used thumb sucking (after infancy), excessive smoking at an early age, eating orgies, and playing with the mouth as indicators of oral tendencies. They found that boys with oral tendencies so defined were not more likely than other boys to become alcoholics. McClelland et al. (1972) point out that the McCords also found

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that prealcoholic boys were significantly more active, assertive, and aggressive than other boys. In a separate major longitudinal study, Jones (1968) essentially replicated this latter finding.

In these studies there seems to be solid evidence against the oral dependency theory, and more in line with the popular image of the drinker. Along these same lines, McClelland et al. (1972) have recently produced a large book detailing an alternative to the oral dependency theory. These writers suggest, on the basis of projective tests, experiments, and cross-cultural studies that heavy drinkers are characterized more by increased needs to assert personal power motives or display masculine potency than by increased dependency needs. Their studies do, indeed, reveal that people tend to drink more when they have increased needs for power. Of all the original researches reported in the book, however, only two relate specifically to alcoholism. One of these uses college "problem drinkers" as subjects on the assumption that many of them will become alcoholics. The major factor in the self-descriptions of these problem drinkers differentiating them from other college students involved items reflecting "assertive antisocial behavior." This finding is consistent with the findings of the McCords and of Jones, reported above, that prealcoholics are actually more assertive than others of their age.

The only study in McClelland's book using actual alcoholics as subjects suggests a means of resolving the apparent contradiction between the oral dependency and personal power theories. Using a

detailed projective questionnaire, Maccoby found that the "personal power" needs of a group of Mexican alcoholics were actually a "fragile facade" covering an underlying, and more deeply rooted and influential passive-receptive character structure. Just as the Mexican machismo hides the basic oral dependent character in these alcoholics, so do the various indications of increased aggressiveness we have reviewed most likely serve as a reaction formation to strong oral dependent needs in prealcoholics.

Although the McCords found greater aggressiveness in their prealcoholic subjects than in their controls, they concluded that heightened dependency needs are the "major force" in the genesis of alcoholism. In the studies we have reviewed, the aggressive characteristics consistently appear in prealcoholics, while oral, dependent, and passive characteristics consistently appear with the development of actual alcoholism. As the McCords suggest, unless we assume that they spontaneously appear in adulthood, we are forced to assume the heightened dependency needs underlie the youthful independence and assertiveness.

Psychological Factors: Sexual Identity

This overdeveloped masculinity may reflect another problem too. According to Fenichel (1945, p. 379), "the unconscious impulses in alcoholics are not only oral but also homosexual in nature." In many of the psychoanalytic accounts, latent homosexuality plays an important role. Abraham (1927), for example, suggests that the

frustrating mother turns the alcoholic away from heterosexual interests, which he replaces with his passion for alcohol. According to Chafetz and Demone (1962, p. 40), Freud interpreted masculine barroom comradery as a disguised expression of homosexuality.

In more recent literature attention has shifted from specifically homoerotic factors to broader problems of sexual identity. Kline (1972) reviews seven studies on homosexuality and alcoholism, and only one of them gives even weak support to the notion that alcoholics have greater homosexual interests than other subjects. In 1956 in reviewing his results from psychological testing of 87 alcoholics, Button took the important step of identifying the sexual problem of alcoholics as one of sexual identity rather than of homoerotic impulses. His subjects manifested a strong feminine identification and a "failure at maleness" rather than a homosexual object choice.

In a sample of 55 male skid-row alcoholics, Perry et al. (1970) identified a number of family factors that might force an inadequate masculine identification. In these families the father was often absent, and the mother was often the dominant authority figure. Even when both parents were present, the prealcoholics usually felt closest to their mothers, and none of the prealcoholics felt that they were their fathers' favorite children. Such families would seem likely to hinder successful masculine identification, but, unfortunately, this study is inconclusive because it lacked a control group and because of the retrospective nature of the data.

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Essentially similar conclusions were reached, however, in the McCords' well controlled, longitudinal study. The McCords (1960) suggest that, in contrast to normals, the prealcoholic boy is not given a clear perception of, or an adequate motivation for assuming a masculine role. As support, they cite highly significant findings of overt paternal rejection of the prealcoholic, "paternal escapist reactions to crisis," "absence of high parental demands for the child," and so on.

It seems likely that the prealcoholic's sexual identity conflict is temporarily resolved by the development of the hypermasculine facade we described above. Alcohol may initially be useful in maintaining this facade. As the McClelland et al. (1972) report demonstrates, drinking can be used to increase feelings and fantasies of power and masculine potency. In this culture, moreover, the heavy drinker can see himself as a "man's man" and as "one of the boys," (Levy, 1958, p. 656). Also, insofar as alcohol loosens inhibitions, it may allow the developing alcoholic a temporarily greater degree of assertiveness and masculine potency. Finally, it is interesting to note that under the guise of all these "masculine" functions drinking may also be providing significant gratification for the feminine side of his sexual identity. The passive, receptive mode of obtaining the pleasures of intoxication may be satisfying to the feminine component of the alcoholic's identity, as well as to the oral dependent needs.

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Psychological Factors: Aggression

Extreme conflicts over aggression have often been noted in the literature on alcoholism. On a descriptive level the alcoholic's behavior often seems self-punitive or even self-destructive. Levy (1965, p. 655) lists some of these aspects: 1) "there is the simple hangover"; 2) "there is the binge with its miserable days and weeks of resulting sickness"; 3) "there are the lost jobs, the promising careers ruined, the marriages broken"; and, 4) "there is the actual drinking oneself to death, or to the psychic death of severe mental deterioration." On a deeper level there are dynamics which could, indeed, lead the alcoholic to direct much aggression toward himself. In discussing their dependency needs, we pointed out that, like infants, alcoholics may react with extreme anger to the frustration of these needs. This inevitable frustration raises special problems for the alcoholic, for, if he expresses his aggression toward the frustrating object, he is in danger of losing that object and, thereby, the source of his so much-needed supplies. According to Fenichel (1945, p. 369), this is the "main conflict" of alcoholics and other impulse neurotics. The alcoholic finds a pathological solution to this conflict by turning his aggression inward toward himself in self-destructive drinking. Thus, Chafetz and Demone (1962, p. 24) quote an alcoholic patient as saying, "It is more socially acceptable to get stinking drunk than to murder someone."

The choice of words in this quotation is instructive. "Stinking drunk": in his method of punishing himself the alcoholic

can also discharge some of his aggression toward others. Direct acting out of aggression is sometimes facilitated by the disinhibiting effects of alcohol. Barroom fights and drunken boorishness are clear manifestations of this function. More important, however, is the fact that drunkenness can be "stinking," or aggressive, in itself. Menninger (1938) has described the two-fold release of aggression (toward self and toward others) in alcoholism. He shows that the self-destruction of alcoholism may serve as a rebuke to others, a thwarting of their expectations. These "others" may be the parents, the parental substitutes such as the wife, or, more generally, the introjected parental figures (Gerard, 1959, p. 301). By destroying himself, whether in the temporary incapacity of a single period of intoxication, or in the long-term "alcoholic career," the alcoholic discharges his aggression not only internally against himself, but also externally against those who frustrated him but who would be disappointed by his fall.

Integrative Summary: The Negative Identity

Alcoholism, like other forms of psychopathology, is overdetermined. By drinking, the alcoholic achieves through a single means many of the satisfactions he seeks. From an external source he can relatively passively receive a liquid substance that may, in symbolic and physiological ways, provide rewards similar to those provided by mother's milk. Also, in his drinking the alcoholic may be propping up his masculine self-image, while, more covertly, obtaining

a needed passive, feminine satisfaction. Finally, drinking may help him to discharge his aggression both against others and self-destructively against himself.

The various motivational factors may function in another way, too, in addition to this relatively simple additive relation. Rosenman (1955) has marshalled impressive clinical evidence to support his theory that alcoholics are significantly influenced by what he calls a negative ego image. In relation to our discussion, this image represents an integration at a higher level of psychical organization of the various dynamics we outlined. As Rosenman describes this concept, it seems quite similar to Erikson's conception of the negative ego identity. In adolescence, says Erikson (1968, p. 174), some people develop an "identity perversely based on all those identifications and roles which at critical stages of development had been presented to them as most undesirable or dangerous and yet also as most real." The dependent, feminine, and aggressive factors underlying the hypermasculine facade of the prealcoholic might well have this quality of being both "most undesirable" and "most real". The alcoholic role might, then, have this dual quality both because of these dynamics, and because, as Button (1956a, p. 672) suggested, in the prealcoholic's family there is a "specific aura given to alcohol, as well as to other symbols of 'sin', of 'forbidden fruit', rendering them unduly attractive." In the adolescent search for a solid foundation for identity, the strong ("real") dependent, feminine, and aggressive needs might coalesce

around alcohol to form an, as yet covert, but powerful, negative identity, or ego image.

Rosenman (1955, p. 459) stresses the cognitive underpinnings of the alcoholic: "with one fixated at an oral incorporative stage we may expect the cleaving of percepts of self and significant other into dissociated representations possessing little accord with reality." "Rather than contributing their separate definitions to a single integrated self-picture, each self-percept selects from the full store of data available that which will confirm its individual assumptions." One such self-percept would be that of the self as hypermasculine. Not muted by any realistic awareness of the other side of his personality, this ego image is a facade which is difficult to maintain for long.

The development from prealcoholism to alcoholism reflects the growing commitment to the negative ego identity as the person gradually discovers that his inner means (i.e., inadequate independence, masculine identification, assertion, etc.) are insufficient to actualize his grandiose positive identity. As the facade crumbles, the negative identity becomes the more attractive option, not only because of the strength of the component motivations, but also because of its increasingly greater power <u>qua</u> identity. Thus, Erikson (1968, p. 176) says that a negative identity is chosen when "it is easier for the patient to derive a sense of identity out of a total identification with that which he is least supposed to be than to struggle for a feeling of reality in acceptable roles which

are unattainable with his inner means." Drawing on his extensive clinical work with alcoholics, Levy (1958, p. 656) provides further support for the importance of this identity-providing function of alcoholism.

Rosenman (1955) found that the negative ego image or identity could have many other motivating functions in addition to providing the sense of an identity. Some alcoholics, for example, are tempted to act out their negative image (e.g., going on a binge) to prove to themselves that they are not actually governed by the overwhelming needs they fearfully perceive. We might note that Alcoholics Anonymous undercuts this dynamic by requiring that its members acknowledge that they are "powerless over alcohol." Bateson (1972), in fact, explains the success of A.A. as being in large part due to this outmaneuvering of the dynamics of the negative identity.

TEMPORALITY IN ALCOHOLISM

Development

From our reviews of alcoholism and of temporality, we would expect that disturbances of temporality would be an important aspect of the development of alcoholism. In our epigraph, Baudelaire (1971, p. 28) characterizes "relentlessly" pursued drunkenness as a specific antidote to the "horrid weight of Time." Later in the same prose poem, "On Drunkenness," he suggests that if one "would not be the martyred slave of Time," he should "get drunk and never stop." From a psychoanalytic perspective (and as theory, not advice!) Bonaparte (1940, p. 436) has made a quite similar point about time and alcohol. Intoxication, she says, allows "an escape from the restraints imposed upon us by the limitations of space and time, the latter especially." Among the various stages of the development of temporality, the most likely origin of Baudelaire's malevolent Time, and of Bonaparte's "restraints," would seem to be in the oral period with its potential for traumatically frustrating delays of gratification. We found that the alcoholic is significantly fixated at this stage, and so, insofar as intoxication is, in fact, an antidote to the "horrid weight" of this form of time, we may have here an important clue to the nature of alcoholic temporality. The alcoholic may be seeking in his drinking an escape from what, for him,

is the "horrid weight" imposed by delays of gratification. Bergler (1939, p. 29) has made a similar suggestion in saying that "alcohol gives the possibility of the supposed realization of these hopes" of the alcoholic to gain immediate gratifications.

The alcoholic's oral fixation can, as we saw, be traced to either excessive, or highly erratic gratification, or to excessive frustration. Zern (1970), we found, has shown that excessive indulgence limits the development of the sense of the future, and we would expect the other two patterns of child rearing to have the same effect. Too erratic or frustrating patterns would not allow the infant to develop secure expectations of future gratifications.

Temporality should also be affected by the later stages of the development of alcoholism. The constricted sense of the future and the preference for more immediate rewards would be reinforced by the lack of a strong masculine identification, since, as we saw, this identification is normally the critical factor in the extension of the future perspective into imagined adulthood. In adolescence the developing split between the masculine facade and the negative ego identity might hinder the normal acquisition of the sense of the life span as an integration of past, present, and future identity. The positive ego image might project a wish-fulfilling future, but the present would most often reflect spurts of activity seeking more immediate gratifications, and so the normal integration of future ends and present means would be impeded.

Due partially to the lack of normal temporal capabilities, the facade is increasingly difficult to maintain and there is a

gradual emergence to the forefront of the passive, oral needs of the negative identity. "To attain a position corresponding to the narcissistic self-percept is so difficult that the patient quickly despairs of being able to do anything at all" (Rosenman, 1956, p. 460). Temporality at this point should be a meaningful composite of the dynamics we have outlined.

Alcoholic Temporality

Most generally, we should find in alcoholics, as Bonaparte's (1940) article implies, a strong orientation toward relatively timeless states of being; that is, a desire to escape from structured time. Conversely there should be a relative lack of the normal orientation including the integration of past, present, and future dimensions, and the overall movement toward future goals via present actions. Drawing from clinical data, van Kaam (1971) has described what he terms the "fundamental structure" of alcoholism in very similar terms. The non-satiated alcoholic, he says, is "overwhelmed. . . [by] daily life that as past, present, and future is linked to progress, task, project and responsibility" (p. 244). When satiated, on the other hand, the alcoholic "has lost his concern for past and future, for the limits of his lifetime, for progress and project." "He lives, as it were, in an eternal present" (p. 243). It is interesting to note here that the work of the alcoholic poet, Dylan Thomas, reflects just such an orientation. In the words of one critic, "Thomas eliminates the passage of time, conceiving of history as an unmoving, eternal moment" (Korg,

1965, p. 34). Further support for this general description is provided by one of the latest anthropological theories of drinking. MacAndrew and Edgerton (1969) argue from a wealth of data that the cultural meaning of drunkenness is that it is a semi-sanctioned "time out" from the projects and responsibilities of the normal, everyday world.

This general temporality can be broken down into more specific elements. First, we would expect that alcoholics would project a shorter future temporal perspective than normals. A number of experimental investigations support this suggestion. Sattler and Pflugarth (1970) found that hospitalized alcoholics, in comparison to hospital aides, had significantly shorter future time perspectives on a story-completion task. Smart (1968) and Roos and Albers (1965) had similar results.

In addition to a shorter projection into the future, alcoholics should be less oriented toward the future. Cheek and Laucius (1972), using a semantic differential and a questionnaire, found that alcoholics were more past oriented than normal subjects and other drug users. Although their report is not completely clear on this point, they also seem to indicate that their alcoholic subjects were less future oriented than their normal subjects. Cappon and Tyndel (1967) had very different results, however. Using sentence completion techniques, they found no differences between alcoholics and normals on temporal orientation. While we might attempt to explain this contrasting finding as an artifact of their methodology or subject pools, there may also be a clue here to a

more exact statement of our theory. Buhler (1947), inferring from Rorschach protocols, suggested that, while alcoholics had a relative lack of future goals, they also had a high ambition. Cheek and Laucius (1972) report that alcoholics foresee their greatest accomplishments as occurring in the future, although, in contrast to other subjects, they are least likely to feel that the future is predictable. These findings seem to complement each other. Perhaps, as Cappon and Tyndel found, alcoholics project a normal number of events into the future, but they project a different kind of event: i.e., they project fantasied fulfillments of their high ambitions rather than realistic concrete goals. Thus, they would have great hopes for the future, but little basis for confidence in predicting the realization of these hopes.

This interpretation of the research on temporal orientation is compatible with the developmental theory we suggested. The future might exist as the outlet for the wish-fulfilling projections of the positive identity, but not so much for realistic plans which would normally be grounded in a realistic and integrated sense of self. Thus, Force (1958) inferred from results with the Kuder Preference Record that the alcoholic's future was mainly a screen for the projection of "improbable fantasy."

There are a number of interesting corollaries of this proposition. Since the future contains mainly wish <u>fulfillments</u>, the alcoholic would be relatively little oriented toward methods or means of accomplishment extending into the future. Van Kaam (1971, p. 241) reports that the oral dependent alcoholic has a "special avidity for

effortless gratification." "This avidity," he says, "could be described as a thirsting for gratification, rest, fulfillment as a mere gift to be received passively without a preparatory activity." Stewart (1971, p. 62) similarly characterizes the alcoholic as lacking the inclination for "cause-effect," "means-end" thinking.

Drinking is especially tempting to the person with this orientation because, as Bonaparte (1940, p. 435) points out, the gratification from alcohol is "ready to one's hand," and so, little "preparatory activity" is required. Furthermore, the effects of alcohol might help remove the alcoholic from the perceived world of tasks and projects. Chotlos and Deiter (1959, pp. 24-25) suggest that "the perceptual world dulls and recedes with the use of alcohol," and "perceptual objects lose some of their articulation and come closer in quality to objects of fantasy, which represent our dreams and aspirations." "Dulling the perceptual world reduces the urgency of action," and allows a greater absorption in the world of fantasied fulfillments where future-directed action is not required.

The disinclination for means-ends thinking might be reflected in a less finely articulated conception of time. Lacking the awareness of steps in a progress, the alcoholic's characteristic conception of time would be composed largely of relatively gross events such as the objects of their hopes, fears, and so on; the finer articulation of time normally provided by the steps of a plan would be missing.

This greater cathexis of ends, in contrast to means, would be another factor in the alcoholic's lack of the normal integration of past, present, and future, since part of this integration is normally produced by tying present means to future ends. We would also expect, then, that the alcoholic would be more inclined than normals to think of his present in a relatively passive way rather than in terms of active, future-oriented striving. Somewhat tangential support is provided by Smart's (1968) finding that the alcoholic's future is less well organized, or "coherent" than that of normals, and by Sattler and Pflugarth's (1970) finding that the alcoholic sees his future as less predictable, structured, and controllable than that projected by normal subjects. The lesser degree of coherence and structure may reflect the grosser articulation and lesser integration of the alcoholic's conception of time, and the feeling that the future is not predictable or controllable would, as we suggested earlier, reflect the passivity of the alcoholic.

STATEMENT OF HYPOTHESES

From the preceding discussion, nine hypotheses concerning the temporality of alcoholics may be drawn. A general implication of the dynamics we have outlined would seem to be that the ideal state of affairs for the alcoholic would be a return to the relatively timeless state of infancy. Thus, we would predict that:

I. Alcoholics are more oriented toward "timeless," unchanging states than nonalcoholics.

This hypothesis has not, to our knowledge, been previously tested empirically.

The oral preference for more immediate satisfactions should affect the characteristic degree of orientation toward the present and the future:

II. Alcoholics are less oriented toward the future than nonalcoholics.

III. Alcoholics are more oriented toward the present than nonalcoholics.

We found that the previous research on the temporal orientation of alcoholics is inconclusive. The methodology described below is designed to provide a more adequate test of these hypotheses.

The nature of the alcoholic's present and future should be different from nonalcoholics':

IV. Alcoholics project a more passive future than nonalcoholics.

V. Alcoholics see the present in a more passive way than nonalcoholics.

Alcoholics' future projections should include a greater proportion of wishes, hopes, fears, passive expectations, etc., as opposed to goals or outcomes of active striving. Similarly, alcoholics should more often see the present as largely determined by the past or as passive expectation of future events, as opposed to seeing it as changing the past or as active striving toward future goals.

A related hypothesis is that, both because of their greater sense of being determined by the past and because contemplation of past events should be congenial to their passive orientation:

VI. Alcoholics are more oriented toward the past than nonalcoholics.

Although we have reviewed much literature on the general passive orientation of alcoholics, we did not find any empirical research on these three, specifically temporal aspects of this passivity (other than the inconclusive work on past orientation).

A final set of hypotheses concerns the way in which time might be structured for the alcoholic. Since they are less likely to generate future plans and projects realistically grounded in the present and the past:

VII. Alcoholics integrate the past, present, and future to a lesser degree than nonalcoholics.

We found that there are already three reports in the research literature which agree in finding that alcoholics have shorter temporal perspectives than normals. We will attempt to see if these findings are supported when more elaborate controls are provided in the design:

VIII. Alcoholics conceptualize shorter spans of time than nonalcoholics.

Finally, because they are disinclined to develop plans and, thus, to consider the connecting steps between events:

IX. Alcoholics' conceptions of spans of time are less finely subdivided into discrete events than non-alcoholics'.

Although the clinical literature seems to support all three of these hypotheses, there is empirical research only on Hypothesis VIII.

SUBJECTS AND INSTRUMENTS: PRELIMINARY CONSIDERATIONS

Subjects: Who is an Alcoholic?

We must now fulfill our earlier promise to grapple with some of the complexities involved in defining alcoholism. Turning first to Wolman's Dictionary of the Behavioral Sciences (1973, p. 17), we find a seemingly simple and plausible definition: "addiction to alcoholic beverages." Even the seemingly obvious "alcoholic beverages" in this definition might be questioned, for, as Keller (1962, p. 312) points out, "many 'alcoholics' may be dependent on intoxication rather than addicted to a particular substance." This question, though, seems most profitably posed to future research, and it should not impede our search for a workable definition.

"Addiction" poses more pressing problems, however. As the McCords (1960, p. 9) suggest, use of "addiction" or "dependency" in the definition neglects the important fact that some people may be dependent on alcohol without its causing them or others significant problems. They also object to these terms because of the difficulty of determining who is addicted or dependent. While Wolman's definition might be criticized for overinclusiveness, as in the McCords' first objection, it might also be objected that it excludes a significant number of people who should be included.

Jellinek (1962) points out that in Anglo-Saxon countries most problems associated with alcohol are seen in those who consume excessive amounts over a long period, and our definitions tend to derive from these more prominent specimens. In some countries, and in this country too to some degree, however, major problems derive from occasional, episodic heavy drinking. These "binge drinkers" might not be called addicted, but they, too, may certainly have major problems with alcohol.

Wolman's superficially plausible definition seems inadequate, then, on a number of counts. Perhaps most basically the problem is that the definition is grounded in a presupposed theory of alcoholism: that it is an addiction. This theory is by no means universally accepted (see, e.g., Szasz, 1974), and so the picture of alcoholism reflected in research with subjects selected on the basis of such a definition may be a biased one.

A second type of definition shifts the emphasis from presumed internal factors to observable behaviors. Our interest in what we prereflectively call alcoholism is probably piqued by the familial, medical, legal, and employment problems we see associated with drinking. Observable problems which seem to result from drinking would, therefore, be one useful component of this sort of definition. Secondly, although significant problems might result from even a single episode of drinking, we are interested in more long-term patterns; repetitive drinking would, therefore, be a second observable characteristic. Combining these two components, we have the following operational definition of the alcoholic: the

alcoholic is a person whose repeated drinking seems to cause significant legal, medical, employment, or familial problems. More specific criteria are listed in the next section.

Our definition is admittedly vague in its use of the words "seems to cause". The various problems may be caused by drinking, or they may themselves help to cause the drinking; the direction of influence would not always be easily specifiable. We would agree, however, with the argument of other writers (e.g., Cahalan, 1970) who have used this sort of definition that this imprecision appropriately reflects the current, early stage of research on alcoholism.

Instruments

From the wide variety of instruments reported in the literature, we have chosen the TAT to elicit our subjects' characteristic styles of dealing with time. Our rationale was largely pragmatic. The TAT, in contrast to many of the other possible instruments, is a commonly used clinical test, and our scoring system might extend its usefulness. Also, by scoring the TAT protocols in the way we will describe, we were able to test all of our hypotheses with a single instrument.

PROCEDURE

Subjects

Two groups of subjects were used to test the hypotheses outlined previously; a group of 15 male, alcoholic inpatients on the psychiatric wards of the Ann Arbor VA Hospital; and a comparison group of 15 male, nonalcoholic inpatients on the medical (most often the orthopedic) wards of the same hospital. Patients were referred to the experimenter by their physicians or nurses if they were between the ages of 24 and 36, and if they did not manifest psychotic or psychotic-like processes. The experimenter interviewed each referred patient to obtain: 1) his written consent to participate in the experiment (see Appendix B for a copy of the consent forms); 2) information relevant to the criteria (see below) for inclusion in the groups; and, 3) information relevant to the controls provided in the study.

Criteria for Selection of Alcoholic Group. Patients who were referred to the experimenter as alcoholics were included in this group if they met two criteria. First, they had to carry a diagnosis of alcoholism; the diagnoses used were those of the ward psychiatrists. Second, only those "alcoholic" patients whose repeated drinking seemed to have caused significant familial, legal, medical, or employment problems were included in this group. Information used to establish this second criterion was obtained from

hospital records and from the interviews with the patients. A patient was considered to have significant problems associated with his drinking if there was an affirmative answer to any of the questions in any two of the following five categories:

Familial: has his wife or girlfriend ever threatened to leave him, or actually left him on account of his drinking?; has any family member ever suggested that he seek assistance to control his drinking?

Legal : has his drinking ever been a factor in a court conviction?

Medical : does he have any diagnosed (physical) medical problem which a physician has attributed in whole or in part to his drinking?

Employment: has he ever lost, or been threatened with the loss of a job on account of his drinking?; has he lost more than a couple of days of work on account of his drinking?

General : does he, himself, feel his drinking has adversely affected any of these four aspects of his life?

Criteria for Selection of Nonalcoholic Sample. Patients who were referred to the experimenter as nonalcoholics were included in this group if they met two criteria. First, they could not be carrying a diagnosis of alcoholism in their medical records. Second, only those "nonalcoholic" medical patients who occasionally drank alcoholic beverages, but for whom none of the criteria questions (above) could be answered affirmatively, were included in this group.

Comparison of the Alcoholic and Nonalcoholic Groups. Information relevant to the following control variables was obtained for each subject; length of hospitalization, age, educational level,

intellectual level, employment status, and marital status. The two groups were found not to differ statistically on any of these variables. The comparisons are outlined below:

Length of Hospitalization: The mean number of days of hospitalization prior to the experiment was 15 for the alcoholics, and 10.2 for the nonalcoholics. A Student's T-test with $\alpha = .05$ showed that the two groups had not been hospitalized for statistically different lengths of time.

Age: Only Ss between 24 and 36 years of age were included in the sample. The mean ages of 29.93 for the alcoholics and 29.13 for the nonalcoholics were found, in a Student's T-test with $\alpha = .05$, not to be statistically different.

Educational Level: The alcoholic subjects had a mean of 11.53 years of formal education, while the nonalcoholics had a mean of 12.6 years. A Student's T-test with $\alpha = .05$ revealed that these scores were not statistically different.

Intellectual Level: The Thorndike Vocabulary Test (found in Tomkins and Miner, 1957) was used to assess intellectual level. The means of 9.47 for the alcoholics and 8.67 for the nonalcoholics were found, in a Student's T-test with $\alpha = .05$, not to be statistically different.

Employment Status: Eight of the 15 alcoholics were employed when they entered the hospital compared with 11 of the 15 nonalcoholics. Comparison of these proportions by means of the z statistic revealed that they were not statistically different at $\alpha = .05$.

Marital Status: Nine of the 15 alcoholics were married compared with 6 of the 15 nonalcoholics. The z statistic revealed that these proportions were not statistically different at $\alpha = .05$.

Instrument

After completion of the interview and the Thorndike Vocabulary Test, each subject wrote out a story to each of 5 TAT cards (cards 4, 6BM, 7BM, 10 and 14). Subjects were tested individually. Subjects were handed a booklet of 7 pages, including a cover sheet, 5 blank sheets for writing stories, and a final page of questions. The cover sheet contained the following instructions:

> On the following pages you are to make up and write out a story for each of 5 pictures. When you have read the instructions, the experimenter will hand you the first picture. Look at it briefly, then turn this page, and write out the story suggested to you by the picture. Don't take more than 5 minutes. When you have finished the first story, the experimenter will hand you another picture. Turn to the next page and write out the story suggested by this picture, and so on through the series of 5 pictures. Try to tell a real story to each of the pictures. Please don't just describe the picture. Total time for the 5 stories: 25 minutes.
>
> When you have finished the last story, turn to the last page and answer the questions there. Please do not turn to the last page until after you have finished writing the stories.

The following instructions were on the last page:

> Please make an estimate of the amount of time covered by each of your stories. We mean the amount of time you think it would take if the events in your story actually happened, not the time it took you to think of the story or write it down. If a story has memories in it, or hopes, fears, dreams, etc., disregard these in making your estimate; just estimate the time it would take for the action to happen.

1st story _____

2nd story _____

3rd story _____

4th story _____

5th story _____

Scoring

Data for testing the hypotheses were derived from the TAT stories and the time estimates. A complete scoring manual may be found in Appendix A, but a summary of the scoring procedure follows.

First, each story was scored for the number of discrete events it contained. "Discrete events" were defined as explicit components of the plot that took place at different points in time.

Example: He just got up. He's looking out the window, and thinking about his upcoming marriage.

Score: 3.

Explanation: Each of the underlined groups of words refers to a temporally discrete event. "Thinking about" is contemporaneous with "looking out", and so is not scored.

Second, each story received a score of 1 if it contained a reference to a "timeless," unchanging state, and if this state pertained to any of the "given" characters, i.e., any of the characters depicted on the TAT cards. Such states include sleep, daydreaming, death, suicide, drug "highs," and other states which represent a removal from the forward-moving progression of time. Alcohol intoxication, however, is not scored because it might unduly inflate the scores of the alcoholic subjects.

Example: Bob is considering suicide.
Score: 1.

Third, data for the hypotheses concerning temporal orientation, temporal integration, and activity vs. passivity were derived from the results of a coding process. Each story was given a code for each of the three temporal dimensions (past, present, and future). Thus, there were three codes assigned to each story. Coders had to choose between 3 possible codes for the past dimension, 5 for the present, and 5 for the future dimension of each story. The following chart lists the codes, descriptive "category names" for each code, and brief descriptions of the categories. Examples and detailed coding instructions may be found in Appendix A.

Code	Category Name	Description of Category
1	Past oriented	The story focuses mainly on what led up to the scene depicted in the picture; or the story is mainly of reminiscences, memories, or feelings about things done in the past.
(1)	Past included	The past figures in the story in some way, but the present or the future introduces significant new action.
X1	No past	The story does not explicitly include a past dimension.

Code	Category Name	Description of Category
2A	Present oriented-active	The story focuses mainly on a present situation. If the past plays a role, the present is more than simply an emotional reaction to it. The present may change the past situation, or the characters may be actively considering such a change.
2B	Present oriented-passive	The story mainly describes a present situation which is either: simply a continuation of the past; simply an emotional reaction to the past or to an expected future event; or largely a "timeless," unchanging state.
(2A)	Present included-active	The present figures in the story in some way and is related to the past and the future, but is not the most significant focus of the story. If the past plays a role, the present is more than simply an emotional reaction to it. The present may change the past situation, or the characters may be actively considering such a change.

Code	Category Name	Description of Category
(2B)	Present included-passive	The present figures in the story in some way, and is related to the past and the future, but is not the most significant focus of the story. This present is either: simply an emotional reaction to the past or to an expected future event; simply a continuation of the past; or largely a "timeless," unchanging state.
X2	No present	The story does not explicitly include a present dimension.
3A	Future oriented-active	The story focuses mainly on action, or a plan of action extending into the future.
3B	Future oriented-passive	The story focuses mainly on wishes, hopes, fears, or expectations extending into the future.
(3A)	Future included-active	The future figures in the story in some way, and is related to the present and the past, but is not the most significant focus of the story. This future may be a goal or an outcome of a "present oriented-active" story.

Code	Category Name	Description of Category
(3B)	Future included-passive	The future figures in the story in some way, and is related to the present and the past, but is not the most significant focus of the story. This future may be either wishes, hopes, fears, expectations, or simply continuations of present and/or past conditions.
X3	No future	The story does not explicitly include a future dimension.

After these three steps (coding, number of events, and "timeless" states) were completed, each subject's score relevant to each hypothesis was derived:

Hypothesis I. The score for "timeless" states is provided by the second step; i.e., by summing the number of the subject's stories scored 1.

Hypothesis II. The score for future orientation is provided by the sum: 3A+3B+1/3(3A)+1/3(3B). The "future included" scores are included in this sum because they do reflect some future orientation, but they are not given full weight because they reflect a lesser degree of future orientation than the "future oriented" scores. 1/3 is an arbitrary figure here, but it seems to represent a reasonable reduction of the significance of (3A) and (3B).

Hypothesis III. The score for present orientation is provided by the sum: 2A+2B+1/3(2A)+1/3(2B). The rationale here is the same as that for Hypothesis II.

Hypothesis IV. The score for degree of passive future is the proportion of passive future scores in the total sum of future scores; i.e., [3B+(3B)]/[3A+3B+(3A)+(3B)].

Hypothesis V. The score for degree of passive present is the proportion of passive present scores in the total sum of present scores; i.e., [2B+(2B)]/[2A+2B+(2A)+(2B)].

Hypothesis VI. The score for past orientation is the sum: 1+1/3(1).

Hypothesis VII. The score for temporal integration is the total number of stories in which each temporal dimension is at least "included"; i.e., the number of stories in which neither X1 nor X2 nor X3 is coded.

Hypothesis VIII. The score for span of time conceptualized is provided by the subjects' own ratings.

Hypothesis IX. The score for degree of subdivision of spans of time is provided by the first step; i.e., by summing the number of events in all 5 of the subject's stories.

Scoring Procedure and Interrater Reliability

Subjects' stories were identified only by letter codes which had been assigned randomly to the 30 subjects. The scorers, thus, had no knowledge of which type of subject wrote any of the stories. After the scoring was completed, the subjects were identified and the data were separated into the two groups for hypothesis testing.

The experimenter and two advanced graduate students in Clinical Psychology scored the stories. Both of the latter two scorers were blind to the nature of the experiment beyond what might be inferred from the scoring manual. Each of these two scorers

practiced for approximately an hour by using the scoring manual to score 10 stories written by an entirely different group of subjects. Consultation with the experimenter was permitted only during this training period.

The experimenter and one of the other scorers scored all of the stories. The third scorer scored only the first story written by each of the last 5 subjects of the two groups; thus, she scored a subsample of 10 stories. The interrater reliability of the scoring was assessed by comparing the two sets of scores from the total sample, and by comparing the scores from the subsample produced by the two independent raters. The two interrater reliability coefficients are listed below for each hypothesis.

	Interrater Reliability	
Hypothesis	for total sample	for subsample
I - "timeless" states	0.879	1.000
II - future orientation	0.905	0.795
III - present orientation	0.833	0.810
IV - passive future	0.584	---
V - passive present	0.855	---
VI - past orientation	0.876	0.939
VII - temporal integration	0.755	0.924
VIII - spans of time	scored by subjects	
IX - subdivision of spans	0.684	0.814

Because the scores relevant to Hypotheses IV and V reflect the proportions of future and present references, respectively, which are passive in nature, and because, in the subsample, only one score is available for each subject, reliability coefficients using the type of scores used in the hypothesis testing cannot be derived for the subsample for Hypotheses IV and V; i.e., proportions cannot

be derived from the subsample scores. The two independent raters did agree, however, in their "active" vs. "passive" coding of 85.71% of the future references, and of 87.50% of the present references,

Most of these correlation coefficients are fairly high, and so some faith in the objectivity of the scoring system seems warranted. Using Nunnally's (1967, p. 226) criterion of 0.60 for reliabilities in basic research, all but one of the measures has an acceptable level of interrater reliability. Nunnally (ibid., p. 497) reports, moreover, that "the typical finding is a reliability around .60" for projective tests. Therefore, the results for all of the hypotheses will be reported in the following section. It should be remembered, however, that use of a more conservative criterion such as 0.80 would make the objectivity of the scores for Hypotheses IV, VII, and IX questionable.

It might have been possible to resolve some of the scoring differences through consultation among the raters, but, because the experimenter developed the rating system, such consultation would most likely have biased the scores in favor of his judgments. It was decided instead to average the scores of the two raters of the total sample. In the Results section, then, the statistics reported are derived from the averages of the two raters' scores for each subject.

RESULTS

The hypotheses and experimental procedures have been presented in the previous chapters. In the following pages the results obtained from the statistical analysis of the data are presented.

Hypothesis I - "timeless" states. Each subject received a score representing the number of his stories in which there was a reference to a "timeless," unchanging state. The alcoholic subjects referred to such states in an average of 1.067 of their 5 stories, while the mean for the nonalcoholics was 0.567. As depicted in Table 1, a T-test revealed that these are statistically different scores at $\alpha = 0.05$, and so the data are consistent with the hypothesis that alcoholics are more oriented toward "timeless" states than are nonalcoholics.

Table 1. A Comparison of Alcoholics and Nonalcoholics on a Measure of Orientation Toward "Timeless" States.

	N	Mean	S.D.	t	p, one-tailed test
Alcoholics	15	1.067	0.904	1.739	< 0.05
Nonalcoholics	15	0.567	0.651		

Hypothesis II - future orientation. Each subject received a score summing the number of his stories which were future oriented (scored 1), or in which there was at least a reference to the future

(scored 1/3). As shown in Table 2, the mean of 1.144 for the alcoholics was found to be statistically different, in a T-test with $\alpha = 0.025$ from the mean of 1.767 for the nonalcoholics. These results support the hypothesis that alcoholics are less future oriented than nonalcoholics.

Table 2. A Comparison of Alcoholics and Nonalcoholics on a Measure of Future Orientation.

	N	Mean	S.D.	t	p, one-tailed test
Alcoholics	15	1.144	0.597	2.321	<0.025
Nonalcoholics	15	1.767	0.849		

Hypothesis III - present orientation. Each subject received a score summing the number of his stories which were present oriented (scored 1), or in which there was at least a reference to the present (scored 1/3). Table 3 shows that the means of 4.478 for the alcoholics and 4.056 for the nonalcoholics were not found to be statistically different in a T-test with $\alpha = 0.05$. Thus, Hypothesis III, predicting that alcoholics are more present oriented than nonalcoholics, is not supported by the data.

Table 3. A Comparison of Alcoholics and Nonalcoholics on a Measure of Present Orientation.

	N	Mean	S.D.	t	p, one-tailed test
Alcoholics	15	4.478	0.684	1.315	n.s.
Nonalcoholics	15	4.056	1.040		

Hypothesis IV - passive future. Each subject received a score reflecting the proportion of his references to the future which were passive in nature. The mean proportions of 0.414 for the alcoholics and 0.335 for the nonalcoholics were found not to be statistically different at $\alpha = 0.05$. Thus, the data do not support the hypothesis that alcoholics project a more passive future than nonalcoholics. The data are summarized in Table 4.

Table 4. A Comparison of Alcoholics and Nonalcoholics on a Measure of the Passivity of Their Projected Futures.

	N	Mean	S.D.	t	p, one-tailed test
Alcoholics	15	0.414	0.321	0.746	n.s.
Nonalcoholics	15	0.335	0.254		

Hypothesis V - passive present. Each subject received a score reflecting the proportion of his references to the present which were passive in nature. The mean proportions of 0.417 for the alcoholics and 0.527 for the nonalcoholics were found not to be statistically different at $\alpha = 0.05$; these data are summarized in Table 5. The data do not support the hypothesis that alcoholics project a more passive present than nonalcoholics.

Table 5. A Comparison of Alcoholics and Nonalcoholics on a Measure of the Passivity of Their Projected Presents.

	N	Mean	S.D.	t	p, one-tailed test
Alcoholics	15	0.417	0.190	-1.147	n.s.
Nonalcoholics	15	0.527	0.316		

Hypothesis VI - past orientation. Each subject received a score summing the number of his stories which were past oriented (scored 1), or in which there was at least a reference to the past (scored 1/3). The means of 1.467 for the alcoholics and 1.451 for the nonalcoholics were found not to be statistically different at $\alpha = 0.05$; these data are summarized in Table 6. The data do not support the hypothesis that alcoholics are more past oriented than nonalcoholics.

Table 6. A Comparison of Alcoholics and Nonalcoholics on a Measure of Past Orientation.

	N	Mean	S.D.	t	p, one-tailed test
Alcoholics	15	1.467	0.746	0.057	n.s.
Nonalcoholics	15	1.451	0.748		

Hypothesis VII - temporal integration. Each subject received a score for the number of his stories in which each of the three temporal dimensions (past, present, and future) appeared. The means of 2.133 for the alcoholics and 2.233 for the nonalcoholics were found not to be statistically different at $\alpha = 0.05$. These data are summarized in Table 7. The data do not give support to the hypothesis that alcoholics integrate the three temporal dimensions to a lesser extent than nonalcoholics.

Table 7. A Comparison of Alcoholics and Nonalcoholics on a Measure of Temporal Integration.

	N	Mean	S.D.	t	p, one-tailed test
Alcoholics	15	2.133	1.797	0.178	n.s.
Nonalcoholics	15	2.233	1.223		

Hypothesis VIII - spans of time. Each subject estimated the amount of time required for the action in his story actually to occur. Since a normal distribution could not be assumed here, and since some of the responses did not permit interval scaling (e.g., "a few years"), a nonparametric statistical test was required. The Mann-Whitney U Test was chosen because of its power.

The data were prepared for analysis in the following way. First, each time estimate was given a score from 1 to 8. Following are the ranges of time estimates and the scores assigned to each range:

Score	Range of Time Estimates (TE)
1	$0 < TE < 60"$
2	$60" \leq TE \leq 5'$
3	$5' < TE < 1$ hr.
4	1 hr. $\leq TE \leq 24$ hrs.
5	1 day $< TE \leq 7$ days
6	7 days $< TE \leq 12$ mos.
7	12 mos. $< TE \leq 20$ years
8	20 yrs. $< TE$

The resulting scores were then averaged for each subject, and these averages were then ranked.

Although the mean time-estimate score for the alcoholics was a little lower than that for the nonalcoholics (3.657 vs. 3.853), Table 8 shows that the obtained U of 97 was not statistically significant at $\alpha = 0.05$. N = 13 for the alcoholic group because two of these subjects were not able to provide time estimates. The data do not support the hypothesis that alcoholics conceptualize shorter spans of time than nonalcoholics.

Table 8. A Comparison of Alcoholics and Nonalcoholics on a Measure of Length of Conceptualized Spans of Time.

	N	Sum of Ranks	U	p, one-tailed test
Alcoholics	13	188	97	n.s.
Nonalcoholics	15	218		

Hypothesis IX - subdivision of spans of time. Each subject received a score summing the total number of discrete events in all 5 of his stories. The means of 23.700 for the alcoholics and 20.533 for the nonalcoholics were found not to be statistically different at $\alpha = 0.05$; the data are summarized in Table 9. The data do not support the hypothesis that alcoholics' conceptions of time are less finely subdivided than nonalcoholics'.

Table 9. A Comparison of Alcoholics and Nonalcoholics on a Measure of the Subdivision of Spans of Time.

	N	Mean	S.D.	t	p, one-tailed test
Alcoholics	15	23.700	15.908	-0.684	n.s.
Nonalcoholics	15	20.533	8.308		

DISCUSSION

The findings reported above suggest that alcoholic men differ from nonalcoholic men in two important aspects of temporality: the degree of orientation toward "timeless" states, and the degree of future orientation. A number of other predicted differences failed to materialize, however. In the following pages these findings will be discussed in relation to the theory and previous research reviewed above. Finally, the general implications for future research will be reviewed.

"Timeless" States

In comparison to the nonalcoholics, the alcoholic subjects referred significantly more often in their TAT stories to "timeless," unchanging states such as sleep, reverie, and death. Although there are numerous clinical and theoretical reports along this line (Bonaparte, 1940; MacAndrew & Edgerton, 1969; van Kaam, 1971), this study seems to offer the first empirical evidence of such an orientation in alcoholics.

The hypothesis was derived from the developmental, motivational theory of alcoholism reviewed earlier. It was suggested that "timeless" states represent an escape from the "restraints imposed upon us by . . . time" (Bonaparte, 1940, p. 436), an escape back to the relatively timeless world of infancy. As van Kaam suggests

(1971, p. 244), the alcoholic seems to be "overwhelmed" by "daily life that as past, present, and future is linked to progress, task, and responsibility." Timeless states, such as intoxication, allow the alcoholic to lose "his concern for past and future, for the limits of his lifetime, for progress and project," to live in an "eternal present" (ibid., p. 243).

Although the present research is consistent with this theory, the results do not, of course, provide any direct support for the speculations concerning development or motivation. The direction of causality might, in fact, be the opposite of that suggested here: i.e., it might be that alcoholics are more oriented toward "timeless" states because of their repeated experience with the timelessness of intoxication, rather than that they drink heavily to achieve such timelessness. This research has suggested only that "timeless" states are more prevalent in the fantasies of alcoholics than of nonalcoholics.

The finding does, however, seem to fit most plausibly with those psychodynamic theories reviewed above which stress the oral dependent strivings of the alcoholic. The present research might best be seen as broadening this line of theorizing a bit. On the basis of the present research, it might be argued that the gratifications the alcoholic seeks in intoxication are distinguished not only by their oral, dependent, and passive aspects, but also by their temporal aspect, i.e., their timelessness.

If this interpretation of the finding were correct, then there would not only be important theoretical implications (e.g.,

that there may be strivings for timeless states), but also potential practical implications. Might it not be possible, for example, for the alcoholic to learn to seek his timelessness in less harmful ways than in intoxication?; for example, in meditation, contemplation, or religious or artistic experience?

Future Orientation

In comparison to the nonalcoholics, the alcoholic subjects were significantly less future-oriented in their TAT stories. As discussed earlier, there are seemingly contradictory results reported in the literature on this question of future orientation. Cheek and Laucius (1972) suggest that alcoholics are less future-oriented than normal subjects, while Cappon and Tyndel (1967) found no difference between the two groups. Actually, Cheek and Laucius do not, in fact, state clearly their findings concerning temporal orientation, but rather merely seem to imply a lesser degree of future orientation among alcoholics. Thus, the major question concerns the reconciliation of the present results with those of Cappon and Tyndel.

There are two differences between the two research designs which might account for these contrasting results: the subject pools, and the instruments used. Cappon and Tyndel's alcoholics were selected from day-treatment and outpatient services, and so they may have been less severely alcoholic than the inpatients studied in the present investigation. In this writer's (informal) opinion, however, the latter subjects might well, in a different setting, with a different treatment philosophy, have been treated as outpatients too.

At any rate, both groups of alcoholics differed from their respective control groups in having been diagnosed and treated as alcoholics, and in their responses to questionnaires designed to identify alcoholism. Thus, there do not appear to be clear differences between the two groups of alcoholic subjects which might plausibly account for the differing results.

There were, however, clear differences between the instruments used in the two investigations. Cappon and Tyndel used two sentence-completion tests, rather than the TAT, as their instruments. In their first test, subjects' completions of 4 future-directed sentence stems (e.g., "Five years from now I see myself . . .") were scored for number of words used, number of different ideas expressed, and degree of optimism. Alcoholics did not differ from nonalcoholics on any of these three aspects of future orientation. In the second test subjects were asked to choose between past-, present-, and future-oriented completions of 10 sentence stems; e.g., "Eating an especially good meal, I usually (a) recall other good meals I have eaten, (b) enjoy my food to the utmost, (c) think of when I will be able to enjoy such food again." Again, there were no significant differences between the two groups, and, in fact, the researchers report that "all Ss showed a marked preference for 'present' items."

The second test does not seem to be a particularly sensitive measure of temporal orientation since "all Ss," including the well-functioning and, therefore, presumably future-oriented comparison group, preferred the "present" items. The first test differs from the TAT procedure in that the sentence stems require the subjects to

respond in terms of the future. Cappon and Tyndel, thus, show that when alcoholics are directed to consider the future they are not less voluble or optimistic than normals. The TAT results, in contrast, suggest that alcoholics are less likely on their own initiative, in their relatively free fantasy, to consider the future. A plausible reconciliation of the two studies might, then, be the proposition that alcoholics are capable of generating normal thoughts about the future, but are less likely than nonalcoholics to exercise this capacity.

This lesser degree of future orientation is consistent with the developmental, motivational theory of alcoholism outlined above. Early patterns of erratic, indulgent, or frustrating oral gratification leave the alcoholic less inclined to look for future gratifications. Future orientation might later be further limited by the lack of a clear masculine identification, i.e., more specifically, by the relative lack of future images of the self in masculine roles. Adult alcoholics, then, such as the subjects in the present investigation, are relatively little oriented toward the future. Our empirical evidence for this hypothesis supports the clinically derived descriptions of such writers as van Kaam (1971).

As with the first hypothesis, it is necessary to note that, although the finding is, thus, consistent with the proposed developmental, motivational theory, there are other plausible interpretations. Alcoholism might be caused by quite different dynamics (or by genetic or physiological factors), and the finding reported here might be more a result of the alcoholism than, as our theory suggests,

an aspect of the dynamics underlying the alcoholism. The repeated bouts of intoxication might, for example, have so impeded the fulfillment of life plans as to discourage the inclination to consider the future.

Regardless, however, of the theoretical interpretation, it seems likely that the finding does suggest an important aspect of the alcoholic's current functioning. Even if the disinclination to consider the future is a late development, a result of the alcoholism, it probably still has significant consequences for the alcoholic. It may, for instance, hasten the descent into more egregious stages of the disease by lessening the inhibitions resulting from awareness of the future consequences of bouts of intoxication. The finding may also have implications for therapy. As Smart (1969, p. 83), in a somewhat different context, suggests, "treatments emphasizing long-term changes and dire eventualities may be less effective than treatments focusing on the present."

Present Orientation

Although alcoholics were more present-oriented than non-alcoholics, the difference was not significant. This result is consistent with Cappon and Tyndel's finding of no difference in degree of present orientation between alcoholics and normals, but it is at odds with the theory of alcoholic temporality presented above. This theory suggested that developmental experiences would cause the alcoholic to be unusually preoccupied with the present.

Like Cappon and Tyndel's test (see above), the procedure here may not have been sufficiently sensitive to differences between the groups. Hindsight suggests that probably most TAT stories from nearly any group of subjects would include a present dimension, and, in fact, inspection of the results indicates that both of these groups of subjects were very strongly present-oriented (the means were 4.478 and 4.056 out of a maximum possible score of 5.0). Thus, the test itself, or the scoring system may have so favored present references that any real differences between the groups were obscured.

Nevertheless, the fact remains that neither of the two relevant empirical investigations support the theories and the clinically derived suggestions that a greater than normal degree of present orientation is characteristic of alcoholics.

Passive Future

There was not a significant difference in the proportions of future references which were passive in nature for alcoholics vs. nonalcoholics. Confidence in the objectivity of this finding is lowered considerably, however, by the low interrater reliability coefficient.

Many writers, such as Van Kaam (1971, p. 241), have suggested that alcoholics have a "special avidity" for "gratification, rest, fulfillment as a mere gift to be received passively without a preparatory activity." If such descriptions were accurate, it seems that alcoholics' future references would include fewer active

strivings or plans of action than would those of nonalcoholics. Unfortunately, conclusions regarding such hypotheses must await the development of a more reliable test.

Passive Present

Alcoholics' present references were found not to be more passive than those of nonalcoholics; in fact, although the difference was not significant, the nonalcoholics had the greater proportion of passive present references. Although we should not hedge the conclusion that there is no support here for the theory that alcoholics are more passive than nonalcoholics, there is a plausible and easily testable explanation for this unexpected finding. The alcoholics in this sample were relatively young (mean age of 29.93 years), and, thus, might still have been operating in terms of the hypermasculine facade, or positive identity described above. It would be interesting to see, then, if older alcoholics, who presumably have given up the pretensions to active, hypermasculine strivings, would project a more passive present. Precedent for such a finding concerning age and temporality is provided by Smart (1968), who found a high negative correlation between time perspective scores and age in an alcoholic sample.

Past Orientation

The hypothesis that alcoholics' TAT stories would be more past-oriented than those of nonalcoholics was not supported by the data. This result seems to conflict both with the theory presented

above, and with the other research relevant to this hypothesis. Cheek and Laucius (1971) concluded that alcoholics were more "past-oriented" than normals. Using a questionnaire and a version of the Semantic Differential, they found that for alcoholics "the past is seen as the most pleasant, influential, exciting, receptive period of their lives, and is closer to them than it is to the other groups"; moreover, "given their choice, they would like to live in the past" (p. 340). In that the past is, in a sense, "finished," requiring, in contrast to the present and future, no further effort or activity, Cheek and Laucius' results are consistent with the general theory that alcoholics have a more passive orientation than normals. As mentioned before, however, the report of this study is so sketchy that, unless more details are provided, we can have little confidence in the validity of the conclusions stated. The writers, in fact, do not provide any numerical data, nor do they mention the use of any statistical tests of significance.

None of our three hypotheses concerning the presumed alcoholic passivity was supported by our data: alcoholics were not more passive in their present and future references, nor were they more past-oriented than nonalcoholics. Again, these results may reflect the relative youth of our sample, but the consistent lack of support for these hypotheses does suggest strongly that alcoholics, at least those of this age group, cannot be said to have a more passive temporal orientation than comparable nonalcoholics.

Temporal Integration

Alcoholics did not integrate the three temporal dimensions (past, present, and future) less often than the nonalcoholics. Although there is no previous reference in the literature to temporal integration among alcoholics, there are numerous reports which would be consistent with a finding of a lesser degree of temporal integration. Stewart (1971, p. 62) suggests that the alcoholic lacks the inclination for "cause-effect," "means-end" thinking. More generally, it seemed plausible that the relative lack of future plans realistically grounded in the present and the past (e.g., Force, 1958) would be reflected in a lessened tendency to integrate past, present, and future. Also, the various descriptions (e.g., Rosenman, 1955) of a developing split between the hypermasculine facade and the negative ego identity would seem to suggest that the integration of the life span in terms of past, present, and future identity would be impeded.

Our hypothesis predicted a more general lack of temporal integration than would, strictly, have been predicted by the theories from which it was derived. A more direct test of these theories might involve a narrower focus on the integration of subjects' actual future goals and present and past experiences and actions. The present results perhaps reflect most directly on Stewart's suggestion, but, still, a measure more specifically relevant to "means-ends" thinking could probably be devised.

Spans of Time

Alcoholics did not give significantly shorter estimates of the spans of time required for the action in their stories to occur. This result conflicts with what had appeared to be the most amply documented finding in the literature on alcoholic temporality. Smart (1968) and Sattler and Pflugarth (1970), using story-telling procedures rather similar to the one used here, and Roos and Albers (1965), using a questionnaire, had all found that their alcoholic subjects had significantly shorter temporal perspectives than their normal subjects.

Probably the most plausible reason for the difference between the present result and those of these other investigators is the difference in the controls employed. Sattler and Pflugarth, and Roos and Albers compared hospitalized alcoholics to nonalcoholics living their normal lives in their communities. Both groups in the present study, on the other hand, were hospitalized. Although the proposition has not been empirically tested, it seems likely that hospitalization itself might significantly curtail temporal perspective since it removes the patient from the activities and relationships in which much of his past and future are embedded; hospital life, in contrast, seems to be almost a timeless state, with a cyclical repetition of the same daily schedule, and with the furthest temporal horizons being only as far away from the present as the dates of entry into and discharge from the hospital. Thus, the results of the two earlier studies may reflect the effects of hospitalization rather than of alcoholism.

In the other study finding shorter temporal perspectives among alcoholics, Smart compared alcoholics involved in day-treatment and outpatient programs to nonalcoholics living their usual lives. Although the uncontrolled effects of the treatment programs might not be as great here, similar considerations would still seem relevant, especially in regard to the day-treatment patients. Smart's findings seem further confounded by the fact that "all of these alcoholics had a long history of uncontrolled drinking and previous attempts at therapy" (p. 81). In other words, his alcoholics were currently attempting, for whatever reasons (not necessarily because of their own future plans), a treatment that had previously failed for them. Alcoholism, thus, does not seem to be the only difference between his groups which might have shortened the temporal perspectives of the alcoholics.

In summary, then, until a new study with better controls suggests otherwise, alcoholics cannot be confidently described as having a shorter temporal perspective than nonalcoholics.

Subdivision of Spans of Time

Alcoholics did not subdivide their stories into fewer discrete events than nonalcoholics; in fact, alcoholics included a few more events in their stories, although the difference was not significant. The results here are not entirely convincing, however, because the interrater reliability coefficient was fairly low.

Although perhaps unreliable, the results are consistent with the results for the previous two hypotheses. All three of these

hypotheses concerned the overall structure of the temporality of alcoholics, and all three were basically derived from the notion that alcoholics are less inclined to develop future plans. In this case, it was thought that the lack of interest in the specific steps required in plans of action would be reflected in story plots which were less finely subdivided into discrete events.

These last three measures might, alternatively, be conceptualized as reflecting different components of an underlying planning ability. Rather than casting the results in the framework of the previously proposed motivational theory (i.e., as reflecting degree of interest in future plans), they might be seen as reflecting aspects of the cognitive underpinnings of planning ability: the "capacity" to integrate past, present, and future, the "capacity" to conceptualize (normally) long spans of time, the "capacity" to subdivide spans of time into specific related events--all three of these phrases seem appropriate alternative ways to name our three hypotheses, and all three might plausibly be presented as components of planning ability.

This last set of results might, then, be interpreted as suggesting that alcoholics have a normal capacity to plan (at least in terms of these three components of planning ability). As suggested by the results concerning future orientation, and by the discussion of Cappon and Tyndel's findings, alcoholics might be less likely to make use of their planning ability.

This line of reasoning is, of course, merely speculation, and, in fact, verges on an assertion of the null hypothesis. All

that can be confidently asserted on the basis of these findings is that there is no support for the three hypotheses concerning the overall structure of alcoholic temporality. The speculation does suggest, however, that it might be interesting to investigate more directly the alcoholic's planning abilities and inclinations to exercise them.

Implications for Future Research

In the preceding discussion, we have already suggested a number of topics for future research. In this section, then, we will confine ourselves to the overall implications of this study.

The two significant differences suggest the potential heuristic value of the respective concepts. Actually, future orientation is emerging, with the present study as merely the latest of a long series, as an increasingly popular and interesting variable in research; the present study suggests that the list of relevant nosological groups has not yet been exhausted. Timelessness, on the other hand, seems to be a relatively novel variable in empirical research, and further study of the topic in relation both to alcoholics and to other types of subjects might be interesting.

The number of significant studies on future orientation raises an interesting problem, however. Thus far, a lesser degree of future orientation in comparison to normals has been reported for: less anxious people (Lipman, 1957); depressives (Dilling and Rabin, 1967); schizophrenics (ibid.); psychopaths (Buss, 1966); and

alcoholics (the present study). The differing theoretical explanations for these findings suggest that a greater degree of differentiation of the orientations of the different groups might be possible, but, as they stand, in aggregate, the findings do not suggest that very precise characteristics of the groups have been found. Rabin (1976) has, somewhat similarly, called for a greater "attention to some of the content and characteristics of the FTP constituents" (p. 20), suggesting that different characteristics and contents may reflect quite different traits. FTP here is a measure of temporal perspective, but the argument, mutatis mutandis, seems equally applicable to temporal orientation.

The present study, in the breadth of variables investigated, represents a step in the direction of greater specificity in the study of temporality. Some of the variables (passivity of present and future references, and subdivision of spans of time) have never been studied before. Although the reliability of a few of the scoring procedures was low, the overall pattern of coefficients suggests that, with some further refinement, the scoring procedure might be useful in future investigations. The potential for more specificity, and even the heuristic potential of the specific variables studied here need not be limited by whatever drawbacks might be found in this scoring procedure, however; other instruments might readily be derived. In fact, as we saw in discussing the conflicting results on future orientation, the use of different procedures may sometimes lead to a greater degree of specificity of conceptualization.

There do, however, seem to be certain advantages to the instrument used here. First, we were able to study a total of nine hypotheses with just one instrument. Also, by demonstrating the applicability of new concepts to TAT protocols, the usefulness of this widely used clinical instrument might be extended somewhat. Thus, for example, it would be a relatively simple matter to score a patient's protocol for number of "timeless" states.

SUMMARY

This study compared a sample of alcoholics with a sample of nonalcoholics on measures of a number of aspects of temporality, the manner of relating to time. In general it was predicted, on the basis of a developmental, motivational theory of alcoholism, that the alcoholics would manifest a temporality very different from that of nonalcoholics. Nine specific hypotheses were proposed:

I. Alcoholics are more oriented toward "timeless," unchanging states than nonalcoholics.

II. Alcoholics are less oriented toward the future than nonalcoholics.

III. Alcoholics are more oriented toward the present than nonalcoholics.

IV. Alcoholics project a more passive future than nonalcoholics.

V. Alcoholics see the present in a more passive way than nonalcoholics.

VI. Alcoholics are more oriented toward the past than nonalcoholics.

VII. Alcoholics integrate the past, present, and future to a lesser degree than nonalcoholics.

VIII. Alcoholics conceptualize shorter spans of time than nonalcoholics.

IX. Alcoholics' conceptions of spans of time are less finely subdivided into discrete events than nonalcoholics'.

The alcoholic sample consisted of 15 male inpatients hospitalized with a primary diagnosis of alcoholism at the Ann Arbor VA

Hospital. The comparison group consisted of 15 male inpatients from the medical wards of the same hospital. In addition to medical records, a questionnaire concerning significant familial, legal, medical, and employment problems associated with drinking was used to differentiate the two groups. Controls for length of hospitalization, age, educational level, intellectual level, employment status, and marital status were employed.

Each subject was asked to write out a story to each of 5 TAT cards. Scores relevant to each of the hypotheses were derived from the stories. Although the interrater reliabilities for Hypotheses IV, VII, and IX were only 0.584, 0.755, and 0.684 respectively, the other scores were much more reliable, and the specially designed rating procedure was judged to be generally successful.

The results supported only Hypotheses I and II: alcoholics were found to be more oriented toward "timeless" states, and less oriented toward the future than nonalcoholics. Although these results may reflect the effects rather than, as suggested by our theory, the underlying dynamics of alcoholism, it was suggested that, in either theoretical interpretation, the findings imply important practical problems for the alcoholics.

Of the seven hypotheses not supported by the data, one should be singled out here for special attention. In three previous investigations, alcoholic subjects were found to conceptualize significantly shorter spans of time than nonalcoholics. It was suggested that the failure to replicate these results reflected the

more elaborate controls in the present investigation, and that, therefore, the previously accepted conclusions regarding the time perspectives of alcoholics are unwarranted.

In general, it may be concluded that alcoholism does have a significant influence on temporality, but not in nearly as many ways as would be predicted from a consideration of alcoholics' dynamics. This study does not, however, bear directly on the validity of the various dynamic theories of alcoholism. Other aspects of temporality related more directly to these theories might still prove to differentiate alcoholics from nonalcoholics; in the discussion of the results, suggestions are made along this line. It was further suggested that at least some of the results of this study might be different among alcoholics of a different age group.

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APPENDICES

APPENDIX A

SCORING MANUAL

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I. Number of Events:

A. Each story is scored for the number of discrete events it contains. "Discrete events" are defined as explicit components of the plot that take place at different points in time.

1. Example: (The man has finished his work) and (come home from his office). Now he's (looking out his window, planning) (what he'll do tomorrow).

Score : 4

Explanation: Each group of words enclosed in parentheses represents an explicit component of the plot which would take place at a point in time different from each of the other events.

B. When a character thinks about, talks about, or in any way refers to a past or future event, score both the present act (of thinking, wishing, wanting, talking, etc.) and the past or future event.

1. Example: Mother and son after (a funeral), son (wants) Mom (to come live with him).

Score : 3

Explanation: "Funeral" is a past event; "wants" is a present act; and "to come live with him" is a future event.

C. A past event or state is sometimes referred to in such phrases as "like they knew all along" or "as they had always done".

Such phrases may refer to discrete events (i.e., they are scorable) if they are not contemporaneous with other, scored events.

1. Example: (They're hugging and loving each other), (just like they always have for the twenty years of their marriage).

   Score : 2

   Explanation: Although the action ("hugging and loving") is the same in the present and the past, there are two explicit components of the plot taking place at different points in time.

2. Example: (John says), "Mary, (don't go)."

   Score : 2

   Explanation: John is saying something in the present, but is referring to a future event.

D. If a character is deliberating over several alternative courses of future action, score each alternative; however, if the alternatives clearly reflect the narrator's uncertainty and are not connected to the character's deliberation, score only the first alternative.

1. Example: John (is trying to decide) (whether to buy a new car) or (save his money).

   Score : 3

2. Example: (He is) either about to (jump out) the window, or maybe he's just opening the window.

   Score : 2

   Explanation: "He is about to" refers to a present state; "to jump out", to a future event; "or maybe. . ." reflects the author's uncertainty and is not tied explicitly to the character's uncertainty.

E. Restatements of essentially the same event are scored only once.

1. Example: Mother and son are having a talk. She is giving him some advice.

   Score : 1

   Explanation: "Having a talk" and "giving him some advice" refer essentially to the same event.

F. If the same situation is described both generally, and in more specific terms, and if the latter description includes explicit events that are not contemporaneous, then each of these explicit events is scored.

1. Example: They had a good time. (They swam), (they ate), and they talked.

   Score : 2

   Explanation: "They swam" and "they ate" most likely refer to non-contemporaneous events, but they may have "talked" while they "ate" or "swam".

II. "Timeless States"

A. Each story receives a score of 1 (one) if it contains a reference to a "timeless," unchanging state, and if this reference pertains to any of the "given" characters, i.e., any of the characters depicted on the TAT cards. Such states include sleep, daydreaming, vacations, retirement, resting, celebrations, festivals, death, suicide, drug "highs," and so on. Alcohol intoxication is not scored. A story is scored if the state actually exists in the present action, if the state existed in the past, or if the state is merely a future possibility explicitly referred to.

1. Example: Bob is considering suicide.

   Score ?: 1

2. Example: Bob and his mother are mourning the death of his father.

   Score ?: 0

   Explanation: The "timeless" state, death, pertains to a character who is not depicted in the TAT card.

B. Many stories involve love, scenes of affection, men and women comforting each other, etc. These are scored only if the entire story describes nothing but love, affection, etc.

1. Example: Two people embraced. They might be dancing, or showing affection.

   Score ?: 1

2. Example: The closeness and comfort of two people. Their love has come in their working and laughing together.

   Score ?: 0

   Explanation: "Working" introduces a distinctly "non-timeless" element into the story.

C. Sometimes it may be difficult to distinguish between daydreaming, reverie, etc. and more active, temporally oriented mental activity.

1. Example: A man is wondering about his future.

   Score ?: 1

   Explanation: "Wondering", in contrast to, e.g., "thinking" suggests a reverie-like state. If the character were wondering "whether to do x or y", the story would not be scored because of the implied necessity of active mental effort (choice).

III. Coding

A. Each story is given a code for each of the three temporal dimensions of past, present, and future. Thus, there are

three codes assigned to each story. The following chart lists the codes and the category names, and gives a brief description of each category. Explicit scoring directions follow the chart.

Code	Category Name	Description of Category
1	Past oriented	The story focuses mainly on what led up to the scene depicted in the picture; or the story is mainly of reminiscences, memories, or feelings about things done in the past.
(1)	Past included	The past figures in the story in some way, but the present or the future introduces significant new action.
XI	No past	The story does not explicitly include a past dimension.
2A	Present oriented-active	The story focuses mainly on a present situation. If the past plays a role, the present is more than simply an emotional reaction to it. The present may change the past situation, or the character may be actively considering such a change.

Code	Category Name	Description of Category
2B	Present oriented-passive	The story mainly describes a present situation which is either: simply a continuation of the past; simply an emotional reaction to the past or to an expected future event; or largely a "timeless," unchanging state.
(2A)	Present included-active	The present figures in the story in some way and is related to the past and the future, but is not the most significant focus of the story. If the past plays a role, the present is more than simply an emotional reaction to it. The present may change the past situation, or the characters may be actively considering such a change.
(2B)	Present included-passive	The present figures in the story in some way, and is related to the past and the future, but is not the most significant focus of the story. This present is either: simply an emotional reaction to the past or to an

Code	Category Name	Description of Category
		expected future event; simply a continuation of the past; or largely a "timeless," unchanging state.
X2	No present	The story does not explicitly include a present dimension.
3A	Future oriented-active	The story focuses mainly on action, or a plan of action extending into the future.
3B	Future oriented-passive	The story focuses mainly on wishes, hopes, fears, or expectations extending into the future.
(3A)	Future included-active	The future figures in the story in some way, and is related to the present and the past, but is not the most significant focus of the story. This future may be a goal or an outcome of a "present oriented-active" story.
(3B)	Future included-passive	The future figures in the story in some way, and is related to the present and the past, but is not the

Code	Category Name	Description of Category
		most significant focus of the story. This future may be either wishes, hopes, fears, expectations, or simply continuations of present and/or past conditions.
X3	No future	The story does not explicitly include a future dimension.

B. The coding process can be divided into a series of six decisions which are made in sequence about each story:

First : Does the story contain any reference to the past? If it does, score 1; if not, score X1.

Second: Does the story contain any reference to the present? If it does, score 2; if not, score X2.

Third : Does the story contain any reference to the future? If it does, score 3; if not, score X3.

Fourth: Is the story past, present, or future oriented? Place parentheses around the temporal-dimension codes which do not reflect the dominant orientation.

Fifth : If the story is "present oriented" or "present included", is the present active or passive? If it is active, add an "A" after the "2"; if passive, add a "B".

Sixth : If the story is "future oriented" or "future included", is the future active or passive? If it is active, add an "A" after the "3"; if passive, add a "B".

Examples of each of the decisions follow.

C. 1 or X1

1. Example: This man is very happy with his life. He is gazing at the sky in contentment.

   Score : X1

2. Example: A father having a heart-to-heart talk with his son who has been down on his luck.

   Score : 1

3. Example: Due to insomnia, this person gazes out of an open window to the stars.

   Score : 1

   Explanation: The "insomnia" preceded the present activity and so is a reference to the past.

D. 2 or X2

1. Example: John had not had any sleep in three days. He had been having trouble at work.

   Score : X2

2. A score of 2 is sometimes appropriate when the narration is in a past tense.

3. Example: The mother stared out the window, knowing this would be the last time she would see her son.

   Score : 2

   Explanation: Score for the character's temporal location, not for the narrator's use or misuse of verb tenses.

E. 3 or X3

1. Example: A man wondering about the future.

   Score : 3

2. Example: A man trying to finish his work.

   Score : 3

   Explanation: There is a future goal (trying to finish his work). "Trying" may cometimes refer simply to a present activity, however, with no clear indication of a future goal, e.g., "trying to be helpful". Score these latter types of stories, X3.

3. Example: This lady wants to be more beautiful.

   Score : X3

   Explanation: "Wants to be more beautiful" refers merely to a present desire. If the story went on to say, e.g., "so she is trying to lose weight", a future goal would be implied and the score would be 3.

F. 1, 2, or 3 oriented

1. Scoring for orientation may be facilitated by considering the stories dramaturgically, and asking, "where is the (relatively) climactic action?", or "where is the 'dramatist' placing his emphasis?" Nuances are important: superficially similar stories may have different orientations as in the following examples.

2. Example: A couple embracing after a traumatic experience.

   Score : 1 (2) X3

3. Example: Something went wrong. They are trying to figure out what went wrong.

   Score : (1) 2 (3)

Explanation: In the first example, the present action is merely a reaction to the past event; the present is secondary, it is not the "main" event. In the second example, the present introduces a new element into the plot, and if the story were a play, the audience's interest would be focused on this new effort. The plot does develop from the past, but the interest has shifted to the present activity.

4. Similar considerations distinguish future orientation.

5. Example: "Do you have to go?" "Yes, my plane will be leaving in a couple of hours."

   Score : X1 (2) 3

   Explanation: Although all of the action takes place in the present, the "main" event, the climax, is in the future.

6. On the other hand, if the future is merely the implied outcome of the present "trying", or if the future intention is merely one of a number of approximately equally important components of a present monologue or dialogue, then the story is not future oriented.

7. Example: They're feeling bad about what they did, and they're trying to get back together.

   Score : (1) 2 (3)

   Explanation: The main interest is in the present "trying", although a future is clearly "included" as the goal of this effort.

G. <u>2A or 2B</u>

1. The tool with which this decision is made is the question, "Does the character engage in the present in motoric or mental activity that is actually or potentially productive (in the sense of bringing about some change in reality)?"

"Trying" is potentially productive; merely "wanting", without any reference to activity, is scored 2B.

2. Example: Bill and John are planning how to improve their business.

   Score : 2A

   Explanation: "Planning" is an active mental activity that is potentially productive.

3. Example: Jerry is feeling sad about the loss of his father.

   Score : 2B

   Explanation: "Feeling sad" is to be considered a non-productive reaction in this scoring system.

4. Example: Bill is consoling Mary after the loss of their son.

   Score : 2A

   Explanation: "Consoling" is a potentially productive, present action.

5. "Timeless" present states (daydreaming, etc.) are scored 2B if there are no "active" elements present as well.

6. Example: They are celebrating their anniversary--they're dancing and cuddling.

   Score : 2B

7. Somewhat similar to "timeless" stories are those in which a character wants to be active but is stymied or blocked. The present, in these cases, is relatively "timeless," i.e. the action is not "going anywhere," and so these stories are scored 2B.

8. Example: He wants to ask her if she will marry him but he can't.

   Score : 2B

9. Example: He can't seem to explain something to his father.

   Score : 2B

10. In stories with both male and female characters, only the male's present is scored for activity-passivity. Thus, e.g., if the female is passive, and the male is active, the score is 2A.

11. Example: He is feeling sorry for himself and she is trying to help him.

    Score : 2B

H. 3A or 3B

1. Any future goal or outcome of action engaged in by one of the (male) characters depicted on the TAT card is scored 3A, except when that future is one of the "timeless" states.

2. Example: The man is trying to leave the lady. She feels sad about it.

   Score : 3A

3. Example: They are both afraid of the coming events, and are holding each other for security.

   Score : 3B

   Explanation: The "coming events" are not explicitly depicted as either a goal, or an outcome of present actions.

4. Example: He is thinking about committing suicide.

   Score : 3B

   Explanation: Suicide is a "timeless" state.

5. If the future is simply a continuation of a present state with no clear indication of a goal which is distinct from the present activity, the score is 3B.

6. Example: John is wondering about his son's behavior. He'll probably continue to wonder about it as long as he lives.

   Score : 3B

APPENDIX B

CONSENT FORMS

CONSENT TO ACT AS SUBJECT FOR RESEARCH AND INVESTIGATIONS

SUBJECT'S NAME _____ DATE _____

I hereby authorize Mr. T. Batchelder to perform the following procedure(s) and/or investigations on myself:

The first part of the experiment is a 20-word, multiple-choice vocabulary test. The second part involves making up stories about some pictures. There are no "right" or "wrong" stories about the pictures, but by studying these stories we may be able to learn a little more about how the human mind works. The experiment will take about 45 minutes.

I understand that my participation in this experiment is entirely voluntary, and that there will not be any effect on my stay in the hospital whether or not I participate. I understand that my answers will be completely confidential and anonymous, and that my name will not be put anywhere on the stories or on the vocabulary test. I also understand that the staff will not learn anything about my responses, and that nothing will be put in my medical chart concerning the experiment.

I understand that I may choose not to enter this study or to stop my participation at any time without prejudice and without jeopardizing my future medical care. I understand that I will not be paid for my participation in this study.

I understand that the investigator, Mr. Batchelder, will answer any inquiries I may have at any time concerning the investigation: he may be reached at (313) 769-7100, Ward 8-E.

_____

Signature of subject

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FACILITY

PART I-AGREEMENT TO PARTICIPATE IN RESEARCH BY OR UNDER THE DIRECTION OF THE VETERAN'S ADMINISTRATION

DATE

1. I, _____ (Type or print subject's name) _____ voluntarily consent to participate as a subject in the investigation entitled _____ (Title or study) .

2. I have signed one or more information sheets with this title to show that I have read the description including the purpose and nature of the investigation, the procedures to be used, the risks, inconveniences, side effects and benefits to be expected, as well as other courses of action open to me and my right to withdraw from the investigation at any time. Each of these items has been explained to me by the investigator in the presence of a witness. The investigator has answered my questions concerning the investigation and I believe I understand what is intended.

3. I understand that no guarantees or assurances have been given me since the results and risks of an investigation are not always known before hand. I have been told that this investigation has been carefully planned, that the plan has been reviewed by knowledgeable people, and that every reasonable precaution will be taken to protect my well-being.

4. Nevertheless, I wish to limit my participation in the investigation as follows:

VA FACILITY	SUBJECT'S SIGNATURE
WITNESS'S NAME AND ADDRESS *(Print or type)*	WITNESS'S SIGNATURE
INVESTICATOR'S NAME *(Print or type)*	INVESTIGATOR'S SIGNATURE

☐ Signed information Sheets attached. ☐ Signed information Sheets available at:

SUBJECT'S IDENTIFICATION *(I. D. plate or give name - last, first, middle)*	SUBJECT'S I.D. NO.	WARD

AGREEMENT TO PARTICIPATE IN RESEARCH BY OR UNDER THE DIRECTION OF THE VETERAN'S ADMINISTRATION

VA FORM JUN 1975 **10-1086** SUPERSEDES VA FORM 10-1086 MAY 1967, WHICH WILL NOT BE USED.