The Structure
of
Psychological
Well-Being

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The Structure of Psychological Well-Being

_By_

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Preface

Sir Isaiah Berlin has observed that there are deep differences in the ways in which people approach life, and that it may be useful to think of these ways as falling into two large groups—the way of the hedgehog and the way of the fox. Hedgehogs approach problems in an integrative manner, trying to bring everything into a single, universal, organizing principle that gives unity to the manifest diversities of life. Foxes, on the other hand, approach problems in a differentiating manner and pursue many disparate problems with little concern for how they fit together or might fit into a larger integrated whole. Hedgehogs look for the unity in diversity; foxes look for the diversity that underlies the unity.

In the field of mental health, the split between hedgehogs and foxes roughly parallels that between theorists and empiricists. The grand theorists such as Freud and Jung were militant hedgehogs. However, a review of the empirical literature in mental health, such as that by Jahoda (1958), shows the field to be dominated by foxes. This unfortunate split between hedgehog-theorists and fox-empiricists has resulted in unifying theories that dangerously approach explaining everything, and thus explaining nothing, or in disparate empirical findings that do not add up to anything. Too often theories are divorced from data, and data are collected with little regard for their theoretical import.

This book is a hedgehog's attempt to bridge that gap and pursue systematic data collection within the framework of a single unifying concept. This concept—psychological well-being, or happiness—has been of great concern to men since recorded history began and has been the object of vast amounts of thought and research for centuries. It is a logical concept to employ in the study of phenomena related to current concerns with mental health and mental illness, and one that is very congenial to the hedgehog mind.

The particular conception of psychological well-being that is elaborated in this monograph emerges from a pilot study conducted by NORC (Bradburn and Caplovitz, 1965), which

attempted to develop instruments for measuring mental health in the population. Analysis of the data from that study led to a conceptualization of psychological well-being as a resultant of two almost completely unrelated dimensions of affect, which we called positive and negative feelings. The results of that study were sufficiently encouraging to suggest that further research along these lines would be productive.

At the conclusion of our pilot study, we noted four main areas for future research: (1) replication of the basic findings regarding the independence of the two dimensions related to well-being and the correlates of these dimensions; (2) systematic investigation of the stability over time of the measures of affect and the conditions that contribute toward their increase or decrease; (3) further investigation of the correlates of positive affect; and (4) determination of the conditions that produce changes in different aspects of the two dimensions. The study reported in this monograph contributes new data to each of these four areas of concern. We have not, of course, solved all of the problems implied in these questions; but this study does represent some progress along the road to providing adequate answers for them.

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On Psychological Well-Being

The research reported in this volume is an attempt to apply a social-psychological perspective to the study of mental health in normal populations. It is *not* concerned with the diagnosis of psychiatric cases, whether treated or untreated, but rather with the problems that ordinary Americans face in the pursuit of their life goals. The fundamental question that underlies the study concerns the most fruitful way to understand the psychological reactions of normal individuals to the stresses and strains of everyday life. Thus, our research focuses on the relationship between an individual's life situation and his psychological reactions to that situation.

The usual way to proceed in studies of mental health in large populations involves placing individuals along some sort of dimension of mental health or illness. Such placement, of course, may vary widely from efforts to identify "cases" in epidemiological studies, or the use of psychiatric rating scales that place individuals along a dimension running from "severely impaired" to "well," to the use of multivariate scales of subjective adjustment based on individual self-report. Because there is at present no general agreement about the way to measure mental health or illness, or indeed about the meaning of the terms themselves, research in this area has been largely noncumulative. The results of one research project have little or no relevance for others.

In the face of a diversity of criteria, how is one to proceed? Szasz (1961) has argued persuasively for one way out of the impasse. He views the concept of mental illness as a myth based

on a faulty analogy with physical disease. He argues that the historically successful attempts to isolate the causes of particular diseases and bring them under control have led to the extension of this approach in grouping together as symptoms of a "mental disease" behaviors that violate some types of social or personal norms. The term "illness" is used in an analogic sense because the symptoms are not related to any underlying organic or genetic malfunctioning. For Szasz, what are usually seen as symptoms are in fact communications about the self that arise from problems in living and are judged by others to be maladaptive, bizarre, or dangerous.

There is much to commend Szasz's general view even if one does not agree with all of the details. First, and perhaps most important, it points clearly to the locus of the problem and indicates the kinds of difficulties that arise out of life experiences. The fact that human beings are not self-sufficient but must live in an interdependent society where other human beings are also engaged in the pursuit of their goals and desires leads inevitably to a succession of interpersonal conflicts. For the most part, the rules of social life establish a framework in which individuals are able to interact with one another and to help each other toward the mutual satisfaction of their goals. But, inevitably, situations occur in which the course of life does not go smoothly and problems arise. The ability to cope with these difficult situations without undue pain to oneself or others is one of the common criteria used for distinguishing "mental health."

Such a conception assumes that the causes of these psychological disorders lie in the interaction between long-term personality dispositions of individuals and the realities of their life situations. It rejects the notion that there is a fundamental medical cause in the sense that there is some organic malfunctioning. Indeed, Szasz is firm in his rejection of the disease model because he feels that it leads to a faulty conception of appropriate therapy—that is, looking toward organic or somatic treatment rather than toward treatment that grapples with the fundamental living problems. While many would not want to reject totally the idea of somatic causes for mental disorders, particularly in view of some of the more promising advances in the biochemistry of the nervous system,

Szasz's formulation of the problem is valuable because it points up a rather fundamental divergence of approaches to the study of mental illness and health. One approach is much more exclusively physiological and directs research toward the neurological and biochemical properties of learning, memory, and emotional reactions. The alternative approach focuses attention on an individual's life situation and how he copes with it. In this approach, one becomes enmeshed in problems that are not medical at all but are what have been more traditionally considered ethical, that is, the problems of proper behavior.

The second main thrust of Szasz's argument is that those who are concerned with mental disorders must deal explicitly with ethical rather than with medical problems. Ethical considerations are brought into play because behavior is continually judged in terms of the social-psychological norms of society. Behavior that is considered a "mental health problem" usually involves thoughts, feelings, or actions arising from life problems that either the person himself or others around him judge to be a serious violation of "normal" behavior. Such judgment assumes that there is a correct standard with which to compare the behavior and that this standard has some validity above and beyond the individual's own feelings, beliefs, or actions.

Part of the concern of those who wish to reject the medical model as the proper one for understanding psychological disorders has been the apparent "creeping imperialism" of those concerned with mental health problems. Since the Freudian revolution, the boundary between the normal and the abnormal has grown less clear and the use of the language of pathology to describe ordinary living problems has become widespread in psychiatric circles. In the absence of any clear data on what constitutes normal feelings, beliefs, and actions in the face of everyday living problems, it is easy for those who specialize in treating people with severe troubles to convey the notion that all kinds of trouble, disturbed feeling states, or confused thoughts are signs of pathological conditions. This rather inflationary use of the language of pathology can lead to some astounding estimates on the degree of pathology in society. For example, the unfortunate phraseology used by the authors of the Midtown study (Srole *et al.*, 1962) has

led to their being quoted in the popular press as estimating that 83 per cent of the residents of the Midtown section of New York City suffered some significant degree of psychic impairment. Couching their estimates in quasi-medical terms, psychiatrists play down the fact that they are making judgments about behavior in the light of some standard presumed to be "correct" or "healthy." While people may concur in the empirical facts that X per cent of the population feel a certain way, believe a certain thing, or behave in a certain way, they will not necessarily concur in the judgment that such behavior is pathological.

In a world where most people are sick and few are well, the words "sick" and "well" take on entirely different meanings from the usual ones. It is proper, however, to talk about most people failing to live up to some standard of behavior that has been judged good or desirable. This is, in fact, what moralists are doing when they exhort people to lead better lives. This is also what is being done by those who preach a doctrine of "positive mental health" in terms of self-actualization, creativity, zest for living, etc.

If one abandons the concept of mental health, then one is left with some terminological problems, for as Smith (1961) points out, the term "mental health," if nothing else, is a convenient rubric under which to consider human behavior from an evaluative point of view. But perhaps it is just as well that we abandon global terms and deal with specific problems rather than try to lump everything into one single category. Indeed, it may well be that what at first glance appears to be a considerable awkwardness in the use of ordinary language is in fact a blessing in disguise. It forces us to concentrate on specific dependent variables for which we can begin to develop measures that have some common acceptance rather than try to use as a dependent variable such a vague and highly general concept as "mental health."

THE SEARCH FOR THE PROBLEM

If we abandon a global concept of mental health, how are we to proceed in finding a dependent variable? Let us adopt the viewpoint of a naive observer and look at ordinary individuals going about the business of conducting their lives as best they can. We notice several things. First, some people seem to have an easy time

of it, while others have much greater difficulty in accomplishing the things they want to do in life. By difficulties, we mean a whole host of things: they actually fail to get what they want; in the pursuit of their goals, they cause trouble or pain to others; and they suffer from feelings of failure, unhappiness, worry, and even from unpleasant physical symptoms.

Second, we note that almost everybody has periods in his life when he has difficulties with some or many parts of his life. We also note a considerable variation among individuals in both the degree and the duration of these difficulties. Thus, some individuals go through short periods of relatively minor difficulties, while others seem to be in trouble all the time, or at least for large periods of their lives.

Third, and perhaps not quite as obvious, we note that these variations in intensity and duration of difficulties do not appear to be randomly distributed through society but are found in differing degrees in various groups of society. General observation, in this case supported by good empirical evidence, suggests that those whose lives are in an objective sense more difficult, such as those with marginal jobs skills, poor education, or poor health, are also to a considerable degree those who have the most difficulty in coping with life situations. Thus, we would expect to find that experiencing difficulties in life is not purely a function of the characteristics of the individual but is also influenced by the characteristics of the environment in which he finds himself.

These general observations lead to the research question: How does one operationalize the concept "difficulties in living" so that one can array individuals along some sort of dimension of intensity and investigate variations across individuals and over time? Thus, the first order of business is the development of a series of measures of the degree to which people have difficulties in life.

Once we have developed such measures we can study systematically some of the observations mentioned above. In particular, we would be interested in differences between the transitory difficulties in living that beset individuals in the ordinary course of their lives and the more long-term problems that have been the focus of attention by those who have been primarily concerned with clinical populations. Here the type of model suggested by the

Dohrenwends (1965) appears to be most appropriate. They stress the importance of differentiating between difficulties that are consequences of environmental stress, either short term or long term, and those that might more properly be called "psychological disorders," in which individual reactions persist after removal of the stressful conditions or are out of proportion to the magnitude of the stress. The development of a set of operations for measuring difficulties in living and the consistent application of such measures in the framework of a distinction between responses to environmental stress and psychological disorders should lead to a series of studies in which we can gain a greater understanding of the interplay between environmental factors and personality dispositions in the determination of living problems.

PSYCHOLOGICAL WELL–BEING AS A DEPENDENT VARIABLE

We noted above that the notion of difficulties in living has many meanings. How then are we to choose the most fruitful dependent variable? There are no clear-cut criteria for making this choice. Indeed, much of the art of scientific investigation lies in the choice of the variables to study; and the difference between success and failure appears to lie more in the realm of intuition and luck than in scientific competence.

When one looks at the various meanings attributed to the notion of difficulties in living, one particular variable—happiness, or a sense of psychological well-being—stands out as being of primary importance, both on a commonsense basis and for historical reasons. Discussions of human happiness, concerning both the best means for achieving it and whether or not it is a proper goal of human activity, have been frequent throughout history.

In Book I, Chapter 4, of his *Nicomachean Ethics,* Aristotle (1947) notes that "both the general run of men and people of superior refinement say that [the highest of all goods achievable by action] is happiness [*eudaimonia*], . . . but with regard to what happiness is they differ, and the many do not give the same account as the wise." Although Ross follows the usual practice here of translating the term *eudaimonia* as "happiness," he points out elsewhere (Ross, 1949, p. 190) that it is probably better

translated by the more neutral term "well-being" because Aristotle was interested in more than the pleasurable feelings that are usually associated with the term "happiness." In the centuries since Aristotle, the terms of the debate have changed; but in general there is still agreement that happiness or well-being is the goal of men's actions and still disagreement between the "many" and the "wise" concerning what sorts of things make people happy.

Over the years the "happiness problem" has been defined variously as an ethical, a theological, a political, or an economic problem. Only recently has it come to be defined as a psychological problem. In his stimulating review of the meaning of the term "happiness" in American history, Howard Mumford Jones (1953) shows the evolution of the term from a concern with political rights at the time of the Revolution, through the problems of laissez-faire economics in the nineteenth century, to a modern view of happiness as a psychological concept related to problems of social adjustment. Jones (1953, p. 146), in crediting William James with having the greatest influence in changing the terms of the discourse, writes:

The appearance of *Principles of Psychology* in 1890 marks a turning point. Happiness, decisions of the courts to the contrary notwithstanding, has been transferred from the sphere of law to the sphere of psychology. Not the public life of political science and economics, but the inner life of impulse and emotion—here in the twentieth century, most Americans seem to agree, is the sphere of felicity. James began, the American translations of Freud and Jung and American interest in such Europeans as Nietzsche, Strindberg, Wedekind, Proust, and Joyce continued, the steady transplanting of the roots of happiness out of the world of Adam Smith and Benjamin Franklin into the world of the doctor, the psychiatrist, the personnel director, and the social psychologist. . . . In their hands the ancient doctrine that happiness means living in accordance with nature has taken a new form.

Viewing happiness as adjustment and unhappiness as maladjustment to one's environment leads subtly to equating unhappiness with at least the milder forms of mental illness, and happiness with

mental health. Indeed, Jahoda (1958) notes that happiness is one of the criteria frequently used in notions of positive mental health, but argues that it cannot be a sufficient criterion because there are clearly situations in which being happy would be inappropriate and a sign of psychological disturbance. Notions of mental health as adjustment, that is, feelings, actions, and thoughts appropriate to the situation, would be in accord with Szasz's arguments noted earlier.

In spite of the fact that happiness is now viewed primarily as a psychological phenomenon, it has not played much of a part in modern psychological research. The reason for this neglect, we believe, lies largely in the influence of Freudian theory, which has made psychologists particularly distrustful of self-reports of subjective feelings and sensitive to the distorting influence of defense mechanisms. The general feeling seems to be that excessive defensiveness on the one hand, or excessive self-criticism on the other, would work to make self-reports of happiness devoid of utility as a research variable.

The neglect of psychological well-being as a research variable may be a case of throwing out the baby with the bath water. As we shall see in Chapter 3, there is solid evidence that self-reports of happiness do measure something more than individual defensiveness or self-criticism and that valid and reliable measures can be constructed. In a nationwide sample survey, Gurin, Veroff, and Feld (1960) showed that self-ratings of happiness could be used to measure levels of subjective adjustment and demonstrated how happiness ratings were related to other measures of life problems. Although not extensive, the literature certainly more than encourages the notion that it is rewarding to focus attention on a variable such as psychological well-being.

Although the studies that have focused on well-being have agreed that it is possible to measure the variable reliably, there has not been agreement on its conceptual status. Specifically, there has been no agreement on whether it is a unidimensional variable or whether it is composed of several dimensions. In order for well-being to be a fruitful dependent variable in research, it will be necessary to develop a conceptual framework that will account for some of the divergent findings and will provide a model that specifies the major independent variables related to feelings of

well-being and specifies their interrelationships. Only if research is guided by such an overall conceptual framework can studies build on one another and our knowledge of the phenomenon of psychological well-being be placed on a firmer foundation.

A MODEL OF PSYCHOLOGICAL WELL–BEING

The conceptual scheme we shall use in this study emerged from a pilot study that attempted to develop operational measures for problems in living (Bradburn and Caplovitz, 1965). This framework takes as its fundamental dependent variable avowed happiness or the feeling of psychological well-being. A person's position on the dimension of psychological well-being is seen as a resultant of the individual's position on two independent dimensions—one of positive affect and the other of negative affect. The model specifies that an individual will be high in psychological well-being in the degree to which he has an excess of positive over negative affect and will be low in well-being in the degree to which negative affect predominates over positive. Thus, in many respects, the model is similar to older pleasure-pain or utility models that view an individual's happiness or well-being in terms of the degree to which pleasure predominates over pain in his life experiences.

This particular model stems from an empirical base. In the pilot study mentioned above, a cross section of the population of four small towns was asked whether they had experienced several feeling states during the preceding week. For example, respondents were asked whether during the past week they had felt "on top of the world," "lonely or remote from other people," "bored," or "particularly excited or interested in something." The analysis of the responses showed that individuals varied along two dimensions—one indicative of positive affect and the other indicative of negative affect. Further, it was clear that these two dimensions were independent of one another, making it impossible to predict an individual's score on the negative affect dimension from any knowledge of his score on the positive affect dimension and vice versa. On the other hand, both dimensions were related in the expected direction to overall self-ratings of happiness or subjective well-being. The best predictor of the overall self-rating was the discrepancy between the two scores: the greater the excess of

positive over negative affect, the higher the overall rating of psychological well-being.

The fact that the discrepancy between positive and negative affect should be the best predictor of overall happiness is, of course, no departure from the usual pleasure-pain models. Where this particular model differs from more traditional ones lies in a further finding. Analysis of the data from the pilot study indicated that not only were variations in positive and negative affect independent of one another but that, on the whole, the two dimensions were correlated with different variables. In the most general terms, it was found that the variables which were related to the presence or absence of positive affect had no relationship to the presence or absence of negative affect, while the variables which were related to the presence or absence of negative affect had a similar lack of relationship to positive affect.

Such a model, when fully developed, should add greatly to our understanding of the dynamics of psychological well-being. It suggests, on the one hand, that there is a series of forces whose presence is related to the presence of positive affect but whose absence merely results in a lowering or absence of positive affect rather than any change in negative affect. On the other hand, there is also a series of different circumstances that contribute to the presence or absence of negative affect but have no influence on a person's positive affect. Since an individual's overall sense of well-being is dependent on the relative balance of these two sets of forces, we must look at those forces contributing to either positive or negative affect in order to understand an individual's position along the resultant dimension of well-being.

A hypothetical example may make the implications of this model clearer. We hypothesize that if a man has an argument with his wife, he is likely to experience an increase in negative affect, but he will not experience a decrease in his level of positive affect. If he does not have an argument with his wife, he will not experience the negative affect, but neither will his positive affect be likely to increase. On the other hand, if he takes his wife out to dinner or to a movie, he is likely to experience an increase in positive affect but no change in his level of negative affect. If he does not take his wife out, he will not experience the positive affect, but

neither will he suffer any increase in negative affect. Similarly, if he takes his wife out but they have an argument over where to go, he is likely to experience an increase in both positive and negative affect. Depending on the relative severity of the argument compared with the enjoyment of the night out, the net result of such an evening might be to increase, decrease, or leave unchanged his overall sense of well-being.

Thus, knowing that a man argued frequently with his wife would not give us too much information about his overall sense of well-being (or his marital happiness, for that matter) unless we could combine this information with data on the frequency of experiences that are related to positive affect. Putting the two bits of information together, we would be in a better position to predict the individual's level of psychological well-being.

It should be noted here that data on the number of arguments between spouses and on other experiences related to negative affect would be a good predictor of well-being if there were a strong negative correlation between experiences like arguments that are related to negative affect and actions like going out with one's wife that are related to positive affect. The assumption of such a negative correlation is, we believe, one of the principal reasons why most of the traditional investigations of "mental illness," which involve cases where there is a strong predominance of negative over positive affect, have focused exclusively on this one dimension. The evidence to date, however, indicates that in fact no such negative correlation exists, at least not in the population at large. On the contrary, the correlation between the two types of experiences is nearly zero.

For heuristic purposes we have described the model in simple, mechanical terms as if actions such as arguing or going to the movies led simply to negative or positive feelings. Reflection on the complexities of life, however, suggests that such a simple model does not take adequate account of reality. Feelings almost certainly also give rise to actions, and men take their wives out to the movies because they feel good as well as feel good because they have taken their wives to the movies. The main point here is that the cycle of positive affect, going out, positive affect, etc., goes on independently of the cycle of negative affect, arguments, negative

affect, etc. Sometimes they go on together, sometimes not, and one cannot predict the level of one from knowing the level of the other.

The model proposed here for the understanding of psychological well-being is similar to one Herzberg, Mausner, and Snyderman (1959) proposed for work satisfaction. In their study of the determinants of work satisfaction, they noted the existence of one group of factors that played a role as "dissatisfiers" and another group that played a role as "satisfiers." The presence of such things as low pay, poor work conditions, and disagreements with the boss led to job dissatisfaction; but the absence of these factors did not lead to job satisfaction. Similarly, the presence of such things as challenging work, chances for self-development, and job responsibility led to job satisfaction; but their absence was not associated with job dissatisfaction. Unfortunately, no data on the correlation between "satisfiers" and "dissatisfiers" were given, but we would suspect that there would be substantial independence between the two groups.

If these two dimensions of positive and negative affect are independent of each other and related to different things, can we specify what the important variables are? While knowledge of cause-and-effect relationships is still to be worked out, certain broad outlines of correlations are reasonably clear. Negative affect appears to be related primarily to the variables that have been dealt with by the traditional "mental-illness" approaches. Specifically, variations in negative affect are associated with difficulties in marriage and work adjustment, interpersonal tensions, and feelings of having a "nervous breakdown," as well as with some of the more standard indicators of anxiety and worry. None of these variables, however, is related to positive affect. On the other hand, positive affect appears to be related to a series of factors concerning the degree to which an individual is involved in the environment around him, social contact, and active interest in the world. These factors include such things as the degree of social participation, which is reflected in organizational membership, number of friends, and frequency of interaction with friends and relatives; the degree of sociability and companionship with one's spouse; and exposures to life situations that introduce a degree of variability into one's life experiences. None of these variables is related to negative affect.

The model of psychological well-being as a function of two independent dimensions—positive and negative affect, each of which is related to well-being by an independent set of variables—has interesting implications for our general understanding of some of the naive observations mentioned earlier. If an overall sense of well-being is viewed as the difference between two independent dimensions, then the effect that a particular difficulty in life has on the sense of well-being will not be immediately clear. If the effect of this particular difficulty is to increase negative affect, then, other things being equal, there would be a diminution in well-being. At the same time, however, something could happen that would increase positive affect and thus offset the change in negative affect, producing either no change in well-being or, if the change in positive affect were sufficiently large, even increasing the sense of well-being.

To take our example again, evidence from the pilot study indicated that tensions in marriage were strongly related to negative affect. One would expect an increase in marital tensions to be associated with an increase in negative affect and with a concomitant decrease in overall avowed happiness. Several other things, however, may be at work that will complicate this simple model. First, we cannot tell from the changes in marital tensions and in negative affect what might be happening with the factors within or outside the marriage that are related to positive affect. If they should remain the same, then the simple model would be appropriate. If, however, there should be some compensating factor, such as an increase in sociability or in new experiences, we might expect an increase in positive affect that would tend to cancel out the effect of the increase in negative affect and would result in no change in overall sense of well-being.

The fact that there are two independent dimensions then might well help us explain the differential effect of what appear to be equal amounts of stress on different individuals. If the stress works toward changing the levels of negative affect, its total impact on well-being would be a differential function of the individual's level of positive affect. Since life is an ongoing, dynamic process, we would expect that factors affecting both positive and negative experiences are continually changing and that one's sense of well-being at any particular time might be thought of as a running

average of the relative strength of positive and negative affect averaged out over the recent past. As in any research, we abstract from the ongoing process in an attempt to get measures of particular situations that are related to positive and negative affect, even though this abstraction does considerable violence to the richness of human life. When, as is so often the case in social science, our measuring instruments are rather crude, we expect a considerable amount of error and misclassification. If our model is correct, however, we should on the whole be able to show some significant effects.

The model described here would also lead us to expect some of the group differences mentioned earlier. One of the well-established findings in social science is that individuals of lower education and income are less likely to be involved in their environment and generally lead more restricted lives. Since environmental participation and variability appear to be highly related to the presence of positive affect, we would expect there to be less positive affect among lower socioeconomic groups. Thus, even if there were no differential distribution of interpersonal problems of the sort that are related to negative affect, we would expect that, on the whole, there would be a lower sense of well-being among lower socioeconomic groups than among higher socioeconomic groups. If, in addition, there is a differential in terms of the difficulties in role adjustments related to negative affect, we would expect an even stronger relationship between socioeconomic status and overall well-being. It is important to note, however, that even without such differential difficulties in coping with problems, we would expect differences in well-being due to the restrictions in environmental variability and social participation that are characteristic of lower socioeconomic groups.

The use of psychological well-being as the major dependent variable, in terms of the theoretical conceptions outlined above, should make it possible for studies to contribute more to each other. Whether one focuses on interpersonal problems and other factors related to negative affect, which appear to be the concern of those oriented toward the more traditional problems of mental illness, or whether one concentrates on social participation, sociability, environmental variability, and factors that appear to be more

related to positive affect and to be the concern of those oriented toward positive mental health, this conception offers a model that enables each type of study to contribute to an understanding of the basic phenomenon of psychological well-being.

PLAN OF THE BOOK

The chapters of this book that follow will present a detailed analysis of the empirical data on which the model rests. While the basic model was derived from data collected in a sizable pilot study, the results of which have already been reported (Bradburn and Caplovitz, 1965), the model as described here has been elaborated and extended in line with new data.

Chapter 2 describes the design of the study and the samples used and outlines the analytic techniques to be employed. In Chapter 3 we look at some of the problems in using self-reports of happiness and lay the groundwork for developing the measures used in the study. In many respects, Chapters 4 and 5 are the heart of the study, for the replication and further elaboration of the measures of positive and negative affect provide the empirical base on which our model of psychological well-being rests. Chapter 6 examines some of the correlates of our measures and shows how they are patterned by the major social-structural variables. In Chapters 7 and 8 we take each component of our measure of psychological well-being—positive and negative affect—and show its relation to other, more traditional measures of well-being as well as to some less well studied variables. These two chapters contribute to the "construct validity" of the measures and flesh out what are otherwise rather abstract concepts.

In Chapters 9 and 10 we change our pattern of analysis and show how the concepts of positive and negative affect can be fruitfully used to investigate adjustment in two crucial social roles —marriage and work. In Chapter 11 we show some of the effects of a major social trauma on the well-being of our respondents. Finally, we sum up what we have done and point out some of the major problems that still have to be worked out.

2

Study Design
and Methods
of Analysis

The primary objective of this study is to elaborate the conceptual framework that was developed on the basis of the original pilot study and to refine operational measures of the variables that emerged as important in the measurement of psychological well-being. Ultimately we hope to use these measures to provide time-series data on the psychological states accompanying major social changes such as those occurring in the economy, in international relations, in urban development, and in race relations. Our goal is to determine the nature of interaction between various dimensions of psychological well-being and social processes.

This study is in many respects complementary to the tradition of research on the relation between social forces and mental health, such as the work of Hollingshead and Redlich (1958), the Midtown studies (Srole *et al.,* 1962; Langner and Michael, 1963), and the Sterling County study (D. C. Leighton *et al.,* 1963). Our methodology, however, is closer to that of Gurin *et al.* (1960) in that we rely on a sample survey approach using interviewers who, although they have had extensive training and experience, are not professionals or subprofessionals in the field of mental health.

Our investigation takes as its object such things as felt concerns and worries, feeling states, role adjustment, and patterns of social participation—in short, behavior related to but not exhaustive of the concepts of mental health and illness—in contrast to the

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approach that uses experts' ratings of mental health, psychological impairment, or diagnoses of mental illness. Our approach is thus more a social-psychological one, in contrast to the traditional social-psychiatric one.

The actual design of the study was dictated by both our short-term and long-term goals. In the short run, our primary concern is the relation that events in a person's everyday life—the kind of social life he leads, the state of his health, how he gets along with his wife, and what he is doing at work—have to his feelings of well-being. In the long run, we would like to know how certain patterned social changes, such as the increasing level of education in the population, changes in the level and character of employment, the trend toward greater urbanization of life, and increases and decreases in political tensions, affect the life situations of individual citizens and in turn their sense of psychological well-being.

Since we are interested in change, both in a person's life situation and in the social milieu in which he lives, the logical design was a panel study—repeated interviews with the same individuals. A simple national sample of respondents would have provided a heterogeneous group of individuals that would have enabled us to fulfill our short-term goal. Such a national sample, however, did not seem to be a design that would make a contribution toward our long-term goal. In order to maximize our chances of obtaining information that might help us understand the effects of macro-social forces, we decided to draw our sample from several communities in which there was some likelihood that social change would occur during the period of the study. We wanted to find communities that were likely to experience some major change for better or worse—communities where stresses and tensions would be significantly raised or lowered over a relatively short period of time.

Predicting short-run dramatic changes in communities is not easy. At the time the study was planned, for example, the civil rights movement had not yet reached revolutionary proportions. Had we anticipated the magnitude and scope of this revolution, we might well have selected for study a major southern community. Our concern at the time, however, was mainly, but not exclusively, with economic change; it seemed that the cyclical ups and downs of the automobile industry made Detroit an ideal place for study.

Of the five samples in our study, two were from the Detroit area. One of these was drawn from an all-white suburb where many of the residents were skilled workers in the automobile industry; the other was limited to Negroes living in one area of Detroit's inner city. We had thought initially that the Negroes and whites would be fairly close to each other in the occupational structure; but the inner-city population turned out to have a predominantly lower socioeconomic status, while the suburb was more of a mixture of white-collar and skilled, blue-collar people.

The search for communities undergoing stressful change led us to select a working-class neighborhood in Chicago that was threatened by racial invasion and the unknowns of an urban renewal program. This neighborhood, long populated by whites of European stock, was experiencing an influx of Negro and Puerto Rican families. Judging from newspaper accounts and neighborhood informants, tensions were rising and a community action group was being organized. The question of the effect of these community stresses on the psychological states of the residents led to the inclusion of this Chicago community in the panel study.

The fourth and largest sample was drawn from a suburban county near Washington, D. C. An experimental community mental health program had been established in this county by the National Institute of Mental Health, and the decision to include this county was based in large part on the value such data would have for their research team in that area. At the same time, this sample provided us with a predominantly middle-class population to contrast with the working-class groups in the other samples.

A fifth sample of residents from the ten largest metropolitan areas in the country was also included in the study to serve as a base line against which fluctuations in mood in the other samples could be studied. This group, as we shall see later, provides the reference class on which we base some of our statistical measures.

In allocating our research budget, we tried to optimize the distribution of funds between those samples that would provide the most useful information for our primary, short-run goal and those that would add to our information on the effects of social change. Since the Washington suburban county was in many respects a

microcosm of the United States population and included all types
of housing units, rural, small-town, and urban settings, and a wide
age and occupational distribution, we decided to put a large part
of our resources into this sample. The risks inherent in an attempt
to pick communities in which dramatic changes might occur were
considerable, and we did not want to invest too heavily in any of
these samples. We thus elected to draw relatively small samples
from Chicago and the ten metropolitan areas. These samples
would be large enough to pick up the effects of any events that
might occur, but not so large that they would severely hamper our
analysis if nothing did happen. In Detroit, where we felt the
chances were greater of some major economic change such as
might occur with a then-predicted slump in automobile sales, we
drew somewhat larger samples.

As it happened, none of our expectations was borne out and
none of the communities experienced any major changes during
the year in which we interviewed. The auto industry had a good
year, and there was little layoff or economic change in Detroit;
the anticipated community·action program that was scheduled to
make its appearance in the Chicago area failed to materialize, and
there were no perceptible increases or decreases in tensions among
the various ethnic groups in that area. Thus, our attempts to design
a study that would be prepared to measure change when the big
events occurred was frustrated by our inability to predict ade-
quately when and where such events might occur. This failure,
however, does not impair the usefulness of the data for our
study's short-term focus—the interaction between the individual's
life situation and his sense of psychological well-being.

The cost of conducting several interviews with the same indi-
vidual at different periods of time is considerably higher than the
cost of successive surveys in which different random samples of
individuals are contacted. Because of these expense factors, we
decided to conduct only two interviews with most of our sample
and to select one group for more intensive study, interviewing
each person four times over the course of a year. The Detroit
suburb, which appeared to have the greatest chance of being sub-
jected to significant changes during the year and which had a good

range of white- and blue-collar workers, was selected to receive the four interviews. Second interviews with the remaining samples were conducted at the time of the third wave of interviewing in the Detroit suburban sample. Interviewing began in late January, 1963, and continued in the different waves until February, 1964. Each wave of interviewing required about six weeks to complete. Interviewing on Waves I and III, which involved a much larger number of respondents, took a little over two months, although the bulk of this interviewing was completed during the initial six weeks.

Table 2.1 summarizes the sample sizes for each of the four waves of interviewing. The samples were area probability ones, with the individual respondents being selected randomly from members of the household aged twenty-one to sixty, or, for married persons, eighteen to sixty. These age criteria were imposed in order to limit the study to the adult population in the prime employable years. Our pilot study indicated that problems associated with retirement and old age begin to be prominent after sixty, and we did not want to consider these types of problems in this study.

The response rates ranged from 74 to 85 per cent, with the lowest rates occurring in the largest sample, the Washington suburb, and in the smallest, Chicago. An analysis of the characteristics of the panel losses is given in Appendix 1.

Table 2.1 Sample Sizes in Different Waves

Sample	Wave			
	I	II	III	IV
Detroit suburb	542	480	427	448
Detroit inner city	446	—[a]	350	—[a]
Chicago	252	—[a]	177	—[a]
Washington suburban county	1,277	—[a]	1,001	—[a]
Ten metropolitan areas	270	—[a]	208	—[a]
Total	2,787	480	2,163	448

[a] Respondents in these samples were not interviewed on Waves II and IV.

SELECTED DEMOGRAPHIC CHARACTERISTICS
OF THE FIVE SAMPLES

Social Class

The five samples vary significantly with respect to the three traditional indicators of social class—income, occupation, and education. Whatever the measure, we find that the Detroit inner city is a lower-class community. At the other extreme is the sample from the Washington suburban county, which is predominantly middle class. Close to it in the class hierarchy is the sample from the ten metropolitan areas, followed in descending order by those from the Detroit suburb and Chicago. Table 2.2 summarizes the data used in the following examinations of the three measures of social class.

Income.—Slightly more than one-fourth of the families in the Washington suburban county sample earn $10,000 or more; in the ten metropolitan areas, one-fourth do so. In the Detroit suburb about 20 per cent earn this much, while in Chicago 8 per cent and in the Detroit inner city a tiny 1 per cent are in this high-income bracket. The poverty of the Detroit inner-city Negroes is more evident when we look at the other end of the income scale. About seven in every ten earn less than $5,000; more than two in five earn less than $3,000. The Chicago community, although the second poorest, is still much better off than the Detroit inner city, with less than half as many—slightly less than one-third in all—having family incomes below $5,000. In the Washington suburban county and the ten metropolitan areas, these figures are 18 and 24 per cent, respectively. The Detroit suburb sample is more homogeneous in income than either the Washington suburban county or the ten metropolitan areas. Although it has fewer people earning more than $10,000, it also has somewhat fewer earning less than $5,000.

Occupation.—The data on occupation are similar. In the Detroit inner city, almost three-quarters of the wage earners are employed in semi-skilled or unskilled jobs; two-fifths of the Chicago sample, the next largest proportion, are in these two bottom categories. About one-fourth of the chief wage earners in the Detroit suburb

and in the ten metropolitan areas are in these low-prestige categories, while in the Washington suburban county the proportion is only about one-sixth. At the upper end of the occupational continuum, we find that slightly over 40 per cent of the Washington suburban county household heads are employed in the top occupational classification, which combines the two most prestigious

Table 2.2 Indicators of Social Class by Community (Per Cent)

Indicator of Social Class	Washington Suburban County	Ten Metro-politan Areas	Detroit Suburb	Chicago	Detroit Inner City
Income:					
Less than $3,000	6	8	4	11	42
$3,000–$4,999	12	16	10	21	28
$5,000–$6,999	25	25	33	36	22
$7,000–$9,999	30	26	34	24	7
$10,000 or more	27	25	19	8	1
Total	100	100	100	100	100
Occupation:					
Professional, technical; managerial, proprietor	41	37	30	11	4
Clerical and sales	17	15	13	15	7
Craftsman, foreman, etc.	25	20	30	31	15
Operatives and kindred	8	13	18	23	27
Household workers, laborers	9	15	9	20	47
Total	100	100	100	100	100
Education:					
Eighth grade or less	12	16	17	41	43
Part high school	22	23	29	32	33
High school graduate	34	29	41	15	16
Part college	16	16	8	8	7
College graduate	16	16	5	4	1
Total	100	100	100	100	100
Welfare and ADC recipients	1	1	1	2	15
N[a]	1,277	270	542	252	446

a The N's are the number of cases on which the percentages are based.

In this and all subsequent tables, the respondents who gave no answer (NA) to a question are omitted.

categories—professional and technical workers on the one hand, and managers, officials, and proprietors on the other. In the ten metropolitan areas sample, almost that many are in these two categories. That the Detroit suburb is by no means an exclusively working-class suburb is indicated by the fact that almost one-third of its residents are in these two upper white-collar groups. In contrast, only about one in ten of the Chicago community and less than one in twenty of the Detroit inner-city sample are in these professional and managerial occupations.

It should be noted that these statistics apply only to those households that have a chief wage earner. The extreme poverty of the inner-city Negroes is shown by the sizable number of ADC (Aid to Dependent Children) and other welfare families having no family member in the labor force. This group comprises 15 per cent of the Detroit inner-city sample, over seven times more than in any other sample. In Chicago, 2 per cent of the families fall into this dependent category; and in the other samples, the figure is less than 1 per cent.

Education.—The varying class structures of these communities are further shown by the education of the respondents. More than two-fifths of the inner-city respondents failed to get beyond elementary school. The Chicago sample is almost as poorly educated. In contrast, more than four-fifths in the other three samples had at least some high school education. Moreover, we find that about one-third of the Washington suburban county sample had at least some college education (16 per cent are college graduates); the ten metropolitan areas show the same proportion of college-educated people. The closer tie of the Detroit suburb to the working class is shown by the fact that less than half as many had some college (13 per cent). In Chicago, only 12 per cent had some college education; and this percentage is still smaller in the Detroit inner city (8 per cent).

These data on social class indicators determined our earlier characterizations of the communities. The Washington suburban county is more nearly middle class than any of the others; the Detroit suburb is more of a lower-middle-class–upper-working-class community. The Chicago neighborhood is a solid working-class area, while the Detroit inner city is a lower-class community.

The data indicate that the ten metropolitan areas sample is very similar to the Washington suburban county in its social class composition. The two samples show similar results on most of the items covered in the questionnaire. It could be said that the Washington suburban county is similar to the American metropolitan population as a whole. We shall simplify the subsequent presentation by omitting the ten metropolitan areas sample because of its similarity to the Washington suburban county and because it is composed of people from ten communities rather than one. Thus, the remaining description shall deal only with the Washington suburban county, the Detroit suburb, the Chicago community, and the inner city of Detroit.

Age, Family Structure, and Sex

Table 2.3 presents the data on the distribution of age, family structure, and sex for each of our samples.

Only adults aged twenty-one (or eighteen if married) through fifty-nine were eligible as respondents, and yet even within this range we find noticeable differences in the age structures of the samples. The people in the two poorest communities—Chicago and the Detroit inner city—tend to be older than those in the Detroit and Washington suburban samples. The Detroit suburban families, as might be expected in a suburb of moderately priced homes, are mostly in the early stages of the family life cycle. One-third of the Detroit respondents are in their twenties; in the Washington suburban county, almost as many are this young; but in Chicago and the Detroit inner city, fewer than one-fifth are in that age bracket. Conversely, more than half of the Chicago and Detroit inner-city respondents are between forty and fifty-nine, while a little more than two-fifths of the Washington and one-third of the Detroit suburban samples are in that age group.

Even more marked differences are found in the structure of the families in these communities. A substantial majority of the Detroit and Washington suburban respondents (somewhat more in the Detroit sample) live in families where both spouses are present and there are children under twenty-one years of age. In Chicago, only a slight majority are members of such families. In the Detroit inner city, this proportion drops substantially to 37 per cent. This

Table 2.3 Age, Family Structure, and Sex by Community (Per Cent)

Characteristic	Washington Suburban County	Detroit Suburb	Chicago	Detroit Inner City
Age:				
21–29[a]	27	33	18	16
30–39	30	34	28	29
40–49	26	21	30	28
50–59	17	12	24	27
Total	100	100	100	100
Family composition:				
One person	4	2	11	10
Husband, wife, no children	18	14	13	17
Mother, father, and children under 21 years of age	64	73	56	37
Broken family (single parent and children under 21)	6	4	4	16
Other[b]	8	7	16	20
Total	100	100	100	100
Size of household:				
1 or 2 persons	26	19	34	31
3–5 persons	60	65	51	41
6 or more persons	14	16	15	28
Total	100	100	100	100
Number of children respondent has:				
None	15	9	14	20
1 or 2	49	48	49	34
3 or 4	28	32	26	23
5 or more	8	11	11	23
Total	100	100	100	100
Sex:				
Men	47	46	52	38
Women	53	54	48	62
Total	100	100	100	100
N	1,277	542	252	446

[a] Includes some married persons 18 to 20 years old.
[b] Includes households of siblings, parents with children over 21, and unusual combinations of adult relatives, e.g., niece and aunt.

striking difference between the Detroit inner city and the other samples is due not so much to the absence of children as to the absence of a spouse. The 16 per cent of the Detroit inner-city respondents living in families that have children but only one parent is more than twice the frequency of broken families found in any of the other samples.

The Detroit inner-city households differ from those in the other samples in another respect: they tend to be either quite large or quite small. Thus, the Detroit inner city resembles Chicago in that about one-third of the respondents in each sample live either by themselves or with only one other person. In suburban Washington only about one-fourth and in suburban Detroit less than one-fifth live in single- or two-person households. But the Detroit inner city also has the largest proportion of very large families composed of six or more members (28 per cent). In the other samples, families this large range from 16 per cent for the Detroit suburb to 14 per cent for the Washington suburb.

Closely related to household size, of course, is the number of children in the family. The Detroit inner-city respondents are somewhat less likely than those in the other samples to have any children at all, but those who do are likely to have many. Almost one in four of the inner-city people has at least five children; in the other samples this proportion is only about one in ten.

Not only do the samples differ in age and family structure, but they also show differences in sex composition. The widely hypothesized matriarchal character of the lower-class Negro family is supported by the predominance of women in the inner city of Detroit, where slightly more than 60 per cent of the respondents are women, in contrast with more than 50 per cent in the Washington and Detroit suburban samples. In Chicago there is a slight majority of men.

These statistics demonstrate in a telling way how the poverty-stricken families differ from those higher in the class structure. Thus the Detroit inner-city Negroes tend to live either in relative isolation or in large families. Broken families are fairly common in this community, and the families tend to be mother centered.

Housing

To round out this picture of the samples, we present some statistics on the types of housing in these communities (Table 2.4).

The Detroit suburb is overwhelmingly a community of home-owners, with 90 per cent owning (or buying) their homes. The Washington suburban county is also a predominantly home-owning area (63 per cent), while Chicago and the Detroit inner city are primarily rental areas. Interestingly enough, there are more home-owners in the Detroit inner city than in Chicago.

In suburban Detroit, virtually everybody lives in a single-family, detached dwelling, whether he owns or rents. In the Washington suburban county, a majority also live in detached homes; but this county also has its highly urbanized areas, for 18 per cent live in large apartment houses having seven or more units. The Chicago community consists primarily of small apartment buildings with two to six units. The inner city of Detroit, although our poorest community, nonetheless has a majority living in single-family

Table 2.4   Types of Housing by Community (Per Cent)

Type of Housing	Washington Suburban County	Detroit Suburb	Chicago	Detroit Inner City
Ownership of home	63	90	23	31
Character of dwelling unit:				
Single family, detached	66	97	7	40
Single family, attached	7	–	3	21
Apartment house, 2–6 units	9	1	75	37
Apartment house, 7 or more	18	2	15	2
Total	100	100	100	100
Size of dwelling unit:				
1–4 rooms	25	12	45	24
5 or 6 rooms	50	73	50	50
7 or more rooms	25	15	5	26
Total	100	100	100	100
N	1,277	542	252	446

dwellings, either attached or detached; almost all the rest live in small apartment buildings.

The modest nature of the Detroit suburb is indicated by the size of the single-family houses. Nearly three-fourths of them have either five or six rooms. Most of the Chicago respondents live in dwellings with one to six rooms. The Washington suburban county and, surprisingly, the Detroit inner city show the largest proportions living in houses or apartments with seven or more rooms —about 25 per cent in each sample. But this apparent similarity obscures a major difference: in the Washington county the dwelling units tend to be quite new and the rents high, while in the Detroit inner city the units are old and rents are comparatively low.

In summary, the patterns of income, occupation, education, family composition, and home ownership all serve to document the class differences between these communities. The Washington suburban county, the largest territorial unit in our study, is more heterogeneous than the other samples, having both urban and suburban characteristics and some very poor and some very rich people. And yet this sample is, on balance, a middle-class one, with large numbers in professional and managerial occupations. The Detroit suburb is one of the modest suburban communities that ring our large cities. Its families are relatively young with young children; the chief wage earners tend to be technicians and skilled, blue-collar workers, the latter representing the affluent "new" working class. The Chicago sample appears to be a solid inner-city, working-class group whose incomes and occupations are more suggestive of the "old" working class. The sample of inner-city Detroit Negroes, in contrast to the others, constitutes a poverty-stricken group.

In the chapters that follow, we shall, for the most part, pool the responses from all of our samples. Where there appear to be important community effects other than social class differences, or where it is desirable for replication purposes, we shall treat the samples separately. However, in our many comparisons among subgroups, taking the samples separately, we have found few significant community effects apart from those of social class.

A NOTE ON ANALYSIS OF THE DATA

The data that are the basis for this study were collected through personal interviews with respondents in their homes. All of the interviewing was done by trained NORC personnel who, although experienced interviewers, are not professional workers in the field of mental health. The questionnaire, reproduced in Appendix 3, was almost entirely "closed-ended," that is, the questions were asked in a specific form with possible answers specified in the questions. A few "open-ended" questions probed the respondents' feelings and experiences and allowed the respondent to answer in his own language.

Many readers may feel that a study of phenomena as personal and subjective as psychological well-being should not be approached in this manner, if indeed it should be approached from a scientific point of view at all. While it is undoubtedly true that the use of fixed alternatives puts a certain degree of constraint on the respondent and does some violence to his unique perceptions of his own life experiences, it is not clear that these limitations on the data are serious ones from the point of view of the researcher who is interested in making general statements that will be true for a number of individuals. What is sacrificed in the ability to capture the richness of individual human experience is made up for in the ability to make more general, empirically validated statements about human beings, or at least those living in the contemporary United States.

The first approach, which stresses the uniqueness and wholeness of the individual, is the way of the novelist and the clinician; the second, which stresses common answers and numerical analysis, is the way of the social scientist. Both are valid for their own goals, the one to illuminate the nature of human experiences or help the individual in his own life situation, the other to test the generality of hypotheses derived from the intensive study of a few individuals. The approach that one prefers is a matter of appropriateness to a particular problem and, ultimately, a matter of taste. However, one should not criticize one approach for failing to deal with problems appropriate to the other.

In taking the path of the social scientist, the researcher is faced

with the problem of presenting the data on which his references are based in a manner that is complete enough for the skeptical reader to check the reasoning with the data and, if he wishes, argue with the author, and that is also concise enough to be readable. Inevitably these requirements mean that too many data will be presented for the taste of some readers and not enough for others. In this volume we have tried to steer a middle course that provides the necessary information used to arrive at the conclusions stated in the text but avoids redundant or irrelevant data that detract from the main argument.

The analysis presented in subsequent chapters does not represent all that could be done with the data at hand, nor even all that has actually been done. We have tried to avoid taking the reader down every interesting byway or blind alley that was encountered during the sometimes exciting, sometimes tedious, course of analysis. Where relevant, however, we point out problems where further analysis might contribute valuable information or is already being pursued for separate publication.

STATISTICAL METHODS

The statistical methods employed in this research are, for the most part, not new but are ones that are not too commonly employed in psychological research and may not be familiar to some readers. Our departure from the more usual statistical procedures used by psychologists was dictated by some fundamental assumptions about the nature of the measurement techniques we employed and the statistical techniques appropriate to them. In the theory of measurement, a distinction is made between two types of measures. One employs a metric whose points are separated by equal intervals; the other type uses a metric whose numbers contain no information about the relative distance between points on the scale (Stevens, 1951). Instead, these latter scales only permit one to say that one number is greater or smaller than some other number, not how much greater or smaller it is. In the first type of measurement, called "equal-interval scales," we know that the distance, for example, between the numbers 2 and 4 is the same as the distance between the numbers 4 and 6. In the second type of measurement, called "ordinal scales," we know only that 2 is less than 4 and 4 is

less than 6, but we do not know anything about the relative distances between the two pairs of numbers. The common Fahrenheit temperature scale is an example of an equal-interval scale, while the rank ordering of students in a class is a familiar example of an ordinal scale.

A third type of scale, called a "nominal scale," is also frequently employed in social science research. This scale does not even make the assumption of order employed by the ordinal scale but merely uses numerals arbitrarily to stand for particular categories. A familiar example of this type of scale is to represent religion in numerical tabulations by using the number 1 for Protestants, the number 2 for Catholics, the number 3 for Jews, and the number 4 for other religions. The numbers could easily be scrambled without any loss of information.

While social scientists generally agree that most of the measures employed in their research are, at most, ordinal measures, there are several practical reasons why statistical techniques that assume equal-interval measurement are still employed. Chief among these reasons are the widespread familiarity with the use of these techniques over the years and the relative obscurity of many measures that could accomplish the same purpose without making such assumptions. In addition, the advent of the high-speed computer, with convenient programs for computing correlation coefficients, factor analyses, multiple regressions, and similar techniques that assume equal-interval measures, has lessened the computational burdens that once were an obstacle to the use of these techniques.

In the research presented in the following pages, we have assumed that our measures are only ordinal and have used statistical techniques appropriate to that assumption. The principal analytic technique we shall employ is that of ridit analysis developed by Irwin Bross (Bross and Feldman, 1956; Bross, 1958; Langner and Michael, 1963). The essential notion behind ridit analysis is that of weighting responses on the basis of their probability of occurrence in an empirical distribution, called the "identified reference distribution." The term "ridit" was chosen to signify that it is a probability transformation, similar to techniques such as "probits" and "logits," but based on an empirical distribution or "*R*elative to an *I*dentified *D*istribution."

Ridit values, or weights, were calculated for our principal dependent variables described in Chapter 4. The average ridit on any particular measure for any group of respondents is interpreted as the probability that a person chosen at random from this group will have a higher score on the measure than will an individual chosen at random from the identified reference distribution. For the purposes of our study, the appropriate reference distribution was the ten metropolitan areas sample, since it was included in our study design in order to provide a comparison with the other four communities.

The ridit for a particular category on any of the dependent variables is simply the proportion of individuals in lower categories, plus one-half of the proportion of individuals in the category itself. For example, the ridit value for respondents in the ten metropolitan areas who score 3 on the Positive Affect Scale (to be described in detail in Chapter 4) is the proportion of individuals in that sample who score less than 3, plus one-half of the individuals who score 3. The possible range for ridit values is from .000 to 1.000. When a ridit is calculated in this way for each category on the Positive Affect Scale or any of our other dependent variables, the average ridit of the identified distribution is .50. In our sample, this means that any individual selected at random from the ten metropolitan areas will have an equal chance of being either higher or lower on a particular dependent variable than any other individual from this identified reference group.

The ridits derived from the reference distribution can then be used to weight the distribution, on that particular variable, of individuals from any other sample or from any subgroup of the sample and to transform the distribution into a probability function. The average ridit for a particular grouping represents the probability that an individual selected at random from this group will have a higher score than an individual selected at random from the ten metropolitan areas. In our study, for example, if the average ridit on positive affect was .45 for men in the total sample, we can say that a man chosen at random from this group has a probability of .45 of having a higher score on the Positive Affect Scale than a person (man or woman) chosen at random from the reference distribution.

More often, however, we shall be comparing the average ridits for different subgroups. For example, the average ridit on positive affect for respondents aged twenty-one to twenty-four is .57, compared with an average ridit value of .41 for those fifty-five to fifty-nine. We can interpret these ridits to indicate that an individual chosen at random from the group aged twenty-one to twenty-four is likely to have a higher score on the Positive Affect Scale than is an individual selected at random from among those fifty-five to fifty-nine. Further, by adding .50 to the numerical difference between the average ridits for the two groups (.16), we can estimate the corresponding relative probabilities for the two groups. Thus for our two age groups, the probability is .66 (.50 + .16) that a person drawn from the younger age group will have a higher score on the Positive Affect Scale than will an individual drawn from the older age group. This means that a younger person would be twice as likely to score higher on the Positive Affect Scale than would an older person.

Bross has also given a method for determining whether the difference between average ridits for different groups is "significant," that is, of the sort that would seldom turn up in samples when there is no true difference in the parent population (see Langner and Michael, 1963). For this purpose we can use a table of confidence intervals that gives the width of the 95 per cent confidence semi-intervals of ridits for various sample sizes. To determine whether the difference is significant, we add the confidence semi-interval to the smaller of the two average ridits and subtract the confidence semi-interval from the larger of the two average ridits. If the upper limit of one average ridit does not overlap with the lower limit of the other average ridit, the difference between the two average ridits is considered to be significant at the 5 per cent level of confidence. Bross suggests that this method is in fact a conservative method and that in many cases this difference may be interpreted at the 1 per cent level of confidence.

An example of the calculation procedures for ridits and the table of confidence intervals for different sample sizes are given in Appendix 2.

For some purposes we may wish also to have a measure of the association between two variables or of the partial association

between two variables, holding a third, or fourth, variable constant. A measure of association between variables with ordered categories has been suggested by Goodman and Kruskal (1954). This measure, called "gamma," or Q for the dichotomous case, has a particular probability interpretation. It is a measure of how much more probable it is to get like than unlike orders in two measures when two individuals are chosen at random from the population. In slightly less abstract terms, the gamma coefficient is a measure of the probability that two people picked at random from a population have similar orders on both variables, that is, the person higher on the first variable is also higher on the second. The value of gamma, or Q, runs from − 1.00 to + 1.00.

In a recent article, Davis (1967) has extended the use of the gamma coefficient to include a partial coefficient of association between two ordered variables when a third, or fourth, "test" variable is introduced. This coefficient is interpreted to mean "how much more probable it is to get like than unlike orders in measures A and B when pairs of individuals differing on A and on B and tied on C (or D) but unselected on any other measure are chosen at random from the population."

In our subsequent analysis we shall use both the simple gamma and the partial gammas where appropriate.

There is considerable similarity in the interpretation of these two statistical measures—ridits and gammas—in that they are both concerned with assessing the probability that individuals with certain characteristics will be higher or lower on the particular variables of interest. The reader should keep in mind that when we speak of the association among variables or state that individuals with particular characteristics are more or less likely to have other characteristics, we are making statements about the probable relative ordering of the measures and not about their absolute magnitude.

3

Self-Reports
of Happiness

One of the most difficult aspects of an empirical study of psychological well-being is knowing where to begin. Since the concept has only a vague, intuitive definition and there is no well-established research tradition that has delineated the major parameters of the problem, we must engage in a bootstrap operation to develop empirical measures whose relations with other, better-established measures we can then investigate. Such an operation is essentially an exercise in construct validation, that is, a demonstration that the particular measures we wish to use for our construct "psychological well-being" do, in fact, produce data in accordance with our intuitive notion of the construct and consistent with other related data that are assumed to be indicative of the construct.

Some years ago Gordon Allport admonished his fellow psychologists to pay more attention to what people had to say about their own situations. He noted (Allport, 1953, p. 108):

The prevailing atmosphere of theory has engendered a kind of contempt for the "psychic surface" of life. The individual's conscious report is rejected as untrustworthy, and the contemporary thrust of his motives is disregarded in favor of a backward tracing of his conduct to earlier formative stages. The individual loses his right to be believed. And while he is busy leading his life in the present with a forward thrust into the future, most psychologists have become busy tracing it backward into his past.

Taking this criticism seriously, we shall begin our discussion of psychological well-being with direct self-reports on the respondent's

level of happiness. From there we shall continue in the next chapter to develop more complex measures of psychological well-being that, we hope, will not only add to our understanding of how to measure this initially vague concept but will also help clarify the dimensions of the concept itself.

The use of direct self-reports of happiness is, of course, no departure from the tradition followed by the few other investigators interested in the empirical study of human happiness.[1] It is, in fact, the necessity of using self-reports that has discouraged many researchers from pursuing such investigations. Psychologists, particularly those with a clinical orientation, have a deep suspicion about the validity of self-reports. Many psychologists feel it useless to bother asking a person to rate his own happiness because of the stress put on the distorting mechanisms that people employ to put a good face on things and to mask their true feelings even from themselves.

This distrust of self-reports stems, we believe, from two sources: one is a belief that people may not be able to tell the truth; the second, a belief that people will not tell the truth. Regarding the first, to say that a person cannot tell you whether or not he is happy implies that he may tell you that he is very happy and believe that he is telling the truth, but "really, underneath it all," he is not happy; or vice versa, he may say that he is unhappy when he is "really" happy. The latter case seems clearly a misuse of language; as Marcus Aurelius pointed out centuries ago, "No man is happy who does not think himself so."

The other side of this proposition, that a man can be "really" unhappy when he honestly feels himself to be happy, also seems to be a misuse of ordinary language; but it is one that is argued seriously by psychologists interested in unconscious processes. To make any sense out of such a statement, one would have to show that there is a low correlation between self-ratings of happiness and other measures that, either for theoretical or face-valid reasons, were believed to be as good, or better, indicators of happiness. Examples of such indicators are other statements by the individual about himself, projective psychological tests, dream

[1] For a full review of the scant literature in this area, see Wilson (1967).

reports, or ratings given by other people. Thus, if an individual cannot be an accurate reporter on his own state of happiness, there would be little correlation between different measures of happiness that either depend on more indirect self-reports (i.e., reflect unconscious processes) or are indicators that do not rely on self-reports at all, such as ratings given by friends or experienced clinical judges.

Empirical evidence on these points is slim, but what has been done is encouraging. Hartmann (1934) reports correlations between self-ratings of happiness and the ratings given by friends for about two hundred college sophomores. While the validity coefficient between the average rating given by friends and the self-ratings was only .34, the correlation between ratings by pairs of friends was .68. Although this overall validity coefficient is not as high as one might like, it is, as Wilson (1967) points out, of the same order of magnitude as that typically found in measures of traits other than happiness. Other studies, such as those of Jasper (1930), Washburne (1941), Goldings (1954), and Wessman and Ricks (1966), report validity coefficients of similar or greater magnitude based on correlations between expert ratings and self-ratings. For the most part, however, these studies are based on samples so small as to be of very limited value. Taken together, the available evidence suggests that self-reports are not likely to be subject to any greater validity problems than confront any other measure of subjective states.

Although the data on which we shall be relying in our study are entirely based on self-reports, they do involve reports on many different types of behavior and subjective feelings that have been widely accepted as reflecting states related to what we have been calling "psychological well-being." As we hope to show in succeeding chapters, the meaningful way in which these diverse measures are interrelated would not be consistent with the hypothesis that people cannot accurately report on their own state of happiness.

The second source of distrust about self-reports—that people *will not* tell the truth about their feelings—is more difficult to answer. The seriousness of this objection is partially a function of one's prior beliefs concerning the amount of lying that occurs in ordinary sample surveys. Since it is impossible to ascertain the

amount in any precise fashion, we must rely on several different strategies to estimate the possible effects of lying.

There is a general assumption that people ought to be happy, particularly in an era of general economic prosperity such as this country has experienced for the most part since World War II. Since one of the factors that is known to influence survey responses is the social desirability of the response (Hyman *et al.,* 1954; Hochstim, 1962), we would expect that responses to a general question on avowed happiness would be biased somewhat in the direction of reporting greater happiness than is really the case. There is some empirical evidence that such a shift does, in fact, occur for self-ratings of happiness. Sudman, Greeley, and Pinto (1967) compared the distribution of responses between items in a personal interview and a self-administered questionnaire for a national sample of Catholics. They found that 36 per cent of those personally interviewed, compared with only 23 per cent of those who answered a self-administered questionnaire, reported being "very happy."

Such an effect might be serious if one were primarily interested in determining the proportion of people in a particular population who said they were "very happy," but is not necessarily serious if one is primarily interested in the relationship among many different variables, i.e., the correlates of avowed happiness. We expect that such a social desirability effect is operative throughout the interview schedule and tends to shift the distribution of most of the other happiness-related items without seriously affecting the correlation among the items. Such an interpretation is supported by the fact that many of the relationships reported in later chapters confirm those found in our pilot study (Bradburn and Caplovitz, 1965), which used self-administered questionnaires for the large majority of respondents.

Another effect of lying, whether because of a desire to give a socially acceptable response or for other personal reasons, might be to reduce the variance in self-ratings to such a degree that there are no observed relations between the self-reports and the other variables. If this were the case, almost everyone would give himself the same rating and we would find little variation in our sample. Since common experience tells us that considerable varia-

tion does in fact exist in the everyday world, such a result would clearly indicate that self-ratings have little or no value.

Variations in self-ratings do exist, however, and in fact have been shown in a number of studies to covary with other measures that one would expect to be indicative of happiness, such as physical health, social adjustment, being financially well off, having friends, and having a happy marriage. Studies such as those of Watson (1930), Sailer (1931), Wessman (1956), Wilson (1967), Gurin *et al.* (1960), Inkeles (1960), and our own pilot study have all found that self-reports of happiness are meaningfully correlated with other indicators of psychological well-being that are either well grounded in other empirical research or have strong face validity on the basis of everyday experience. Indeed, the fact that self-reports confirm our everyday expectations in so many cases gives us confidence in their validity in those cases where they do not support common beliefs.

Thus, even though direct self-ratings of happiness are subject to some amount of distortion in a more favorable direction because of the socially desirable nature of the response, there is ample evidence that they are a good place to begin in laying out the groundwork for building a more comprehensive and complex study of psychological well-being.

DISTRIBUTION OF SELF–REPORTS OF HAPPINESS

Questions on avowed happiness have been asked in a number of sample surveys and provide interesting comparative data. Table 3.1 presents the distribution of responses to the direct question, "Taken altogether, how would you say things are these days— would you say you are very happy, pretty happy, or not too happy?" This question has been asked in a variety of surveys conducted over the past ten years by NORC and by the Survey Research Center at the University of Michigan.[2] Responses are divided into three groups: those coming from national samples, those coming from special samples having characteristics that might be relevant to avowed happiness, and finally, those coming from the various samples of our study on the different waves of interviewing.

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[2] The wording of this question, like that of several others used in our study, is taken from Gurin *et al.* (1960).

Table 3.1 Distribution of Avowed Happiness in Selected Studies

Sample	Date	Per Cent "Very Happy"	Per Cent "Pretty Happy"	Per Cent "Not Too Happy"	Total Per Cent	Total N
Nationwide:						
Probability[a]	Spring, 1957	35	54	11	100	2,460
Probability—Catholic[b]	Winter, 1963	36	55	9	100	2,062
Quota[c]	December, 1963	32	51	16	99[d]	1,501
Quota[e]	June, 1965	30	53	17	100	1,469
Special samples:						
Four Illinois towns[f]	March, 1962	24	59	17	100	2,006
Unemployed men[g]	June, 1963	22	44	34	100	390
Urban renewal area—Negro[h]	January, 1964	18	47	35	100	614
Present study:						
Detroit suburb	January–February, 1963	36	57	7	100	542
	June–July, 1963	38	58	4	100	480
	October–November, 1963	35	59	6	100	427
	January–February, 1964	32	63	5	100	448
Detroit inner city	January–February, 1963	17	56	27	100	447
	October–November, 1963	20	57	23	100	350
Chicago	January–February, 1963	31	50	19	100	252
	October–November, 1963	29	59	11	99[d]	177
Washington suburban county	January–February, 1963	35	57	8	100	1,277
	October–November, 1963	33	61	6	100	1,001
Ten metropolitan areas	January–February, 1963	33	59	8	100	270
	October–November, 1963	30	62	8	100	208

a Gurin et al. (1960).
b NORC unpublished data, Study 476.
c NORC unpublished data, Study SRS 160.
d Not 100 per cent because of rounding.
e NORC unpublished data, Study SRS 857.
f Bradburn and Caplovitz (1965).
g Unpublished data from NORC study of plant shutdown in Sioux City, Iowa; see Bradburn (1964).
h Unpublished data from NORC study of urban renewal area in St. Louis; see Treiman (1964).

The first impression one gets from this table is the high degree of consistency over time in the distribution of responses for the national samples and for those samples such as our ten metropolitan areas and Washington suburban samples that are in many ways similar to national samples. In almost all of these samples, about one-third of the respondents report that they are "very happy" and around 5 to 15 per cent report being "not too happy." The findings, which show a skewing toward the happier end of the scale, are similar to other surveys that have used similar questions with slightly different response categories. For example, in a number of surveys between 1946 and 1952, the Gallup organization asked the question, "In general, how happy would you say you are—very happy, fairly happy, not very happy (or not at all happy) [Wessman, 1956]?" On these surveys, a range from 37 to 47 per cent of the respondents reported being "very happy" and around 8 per cent reported being "not very happy."

It is impossible to say with the available data whether the higher proportion in the Gallup surveys reporting that they were "very happy" is a function of the response alternatives or whether it is indicative of a real difference in avowed happiness levels between the late 1940's and the early 1960's. Given the general stability of responses when the same question wording is used, we would interpret the differences as being primarily due to the change in question wording. It seems most probable that the response "fairly happy" was interpreted as indicating a less happy state than "pretty happy," thus accounting for a somewhat larger proportion responding "very happy." Taken together, however, the surveys indicate that the American population as a whole during the postwar years has consistently reported a high degree of avowed happiness.

However, such a high degree of avowed happiness is not uniformly distributed over the entire nation. When we look at certain subpopulations, we see significant variations among those who are in less favorable environments. For example, in our pilot study (Bradburn and Caplovitz, 1965) we interviewed people living in four small towns in Illinois, three of which were in an economically depressed area. Here the proportion reporting that they were "very happy" was less than is commonly found in national surveys, although the proportion reporting that they were "not too happy"

was no higher than has been found in some national surveys. In the two most depressed communities, however, the proportion "not too happy" was 20 per cent, compared with 13 per cent in the less depressed communities. Among a sample of men who had lost their jobs owing to a plant shutdown, the proportion reporting that they were "not too happy" rose to 34 per cent. It probably would have been even higher if there had not been provisions in their contracts enabling them to get jobs in other plants owned by the same company or to receive substantial payments in lieu of transferring to the other plants.

Another sample that deviated from the generally happy picture obtained in the national surveys was found among Negro respondents in a St. Louis urban area that had undergone a fairly rapid change characteristic of neighborhoods suffering from urban blight and had recently been declared an urban conservation area. While the area had some low-income residents, it was not a slum area. It was, however, being allowed to deteriorate by the property owners, who had little faith in the future of the area. Thus, while this sample undoubtedly reflected the economic condition of the residents, it also reflected the depressive atmosphere of a decaying neighborhood and the uncertainties attendant on urban renewal programs with the frequent realities of housing dislocations. The low level of reported happiness in the Detroit inner-city sample of our present study also reflects the low socioeconomic position of its residents, as previously described in Chapter 2.

The variations in level of reported happiness among some of the special samples lend credence to the belief that the self-reports are, in fact, measuring something more than a desire to present a pleasant front to the interviewer. Granted that factors such as social desirability and the wording of the questions influence the answers given, the variations in answers follow those patterns that we would expect if people were in fact reporting what, to the best of their knowledge, was the state of their own happiness.

STABILITY OF SELF-REPORTS OF HAPPINESS

We note that the marginal distributions on avowed happiness for the various national samples was remarkably steady over a fairly long time period. Stability of the distribution for these

samples, however, does not guarantee that there is stability for individuals, since different individuals were being interviewed each time and the responses of the same individuals could not be compared at different time periods. The distributions from our own samples, based on the responses of the same people, also remained fairly constant over the period during which we were conducting our interviews. Even stability of the distributions does not guarantee stability at the individual level. Although the proportions responding at each level of happiness remained the same at each time period, it is quite possible that there was considerable shifting of individual responses. As long as the total number shifting out of one response category was offset by the number shifting into that category, the marginal distributions would remain the same.

When we compare the response of each individual with his response at the subsequent time period, we see that in fact there is considerable stability even at the individual level and that those who said they were "very happy" at one time period were also likely to report that they were "very happy" at the next time period. The measure of this stability is given by the gamma coefficient between the responses of our sample in one wave of interviewing and their own responses in the following wave. Thus, in Table 3.2, we see that the gammas range from .65 to .80 for men and from .79 to .84 for women in the four waves of interviewing in the Detroit suburban sample. On the total sample (including the Detroit suburban sample), the gammas are .74 for men and .71

Table 3.2 Stability of Reports of Avowed Happiness, by Sex (Gammas)

Time Period	Sex	
	Men	Women
Wave I–II	.65	.79
Wave II–III	.68	.79
Wave III–IV	.80	.84
N	179	232
Wave I–III	.74	.71
N	938	1,211

for women. Although women are frequently pictured as being more changeable in mood than men, it is interesting to note that there is greater stability among the women's responses than among the men's.

The fact that the coefficients are less than 1.00 indicates that some change in reported happiness is occurring between any two interviews. In discussing the development of other measures of psychological well-being, we shall investigate in greater detail the implication of these changes and the strategy we shall use for examining the correlates of changes in avowed happiness and in other measures of psychological well-being.

DEMOGRAPHIC CORRELATES OF AVOWED HAPPINESS

Enough research has been done using self-reports of happiness to give a fairly clear idea of the major demographic correlates of avowed happiness. The data reported here simply confirm what has been previously documented, giving us further confidence that our data will have validity when they go beyond what has been studied before. Table 3.3 presents the basic data showing the distribution of responses to the overall happiness question by sex, age, education, income, and race.

As in previous studies (Gurin *et al.*, 1960; Bradburn and Caplovitz, 1965), there are no significant sex differences in avowed happiness. Such a lack of difference seems initially surprising because of a widespread belief that women in modern society, who tend to be better educated than ever before, experience considerable frustration as the traditional role of the housewife becomes less challenging (see, for example, Friedan, 1963). Davis (1965), however, notes that this belief is more common among the "experts" than among the populace at large, who show little inclination to believe that women are any more likely than men to be unhappy or to suffer mental illness. The consistency of the findings in different studies makes it clear that the experts' beliefs about women's unhappiness are not true, at least at the level of self-description. We shall see in Chapter 6, however, some other evidence suggesting why the unsystematic "expert" observer might believe that women are unhappier than men.

Age has a small relation with avowed happiness, with the youngest age group being somewhat more likely to report that

Table 3.3 Avowed Happiness and Selected Demographic Characteristics

Demographic Characteristic	Per Cent "Very Happy"	Per Cent "Pretty Happy"	Per Cent "Not Too Happy"	Total Per Cent	N
Sex:					
Men	31	57	12	100	1,255
Women	33	55	12	100	1,522
					2,777
				NA	10
					2,787
Age:					
21–29	38	54	8	100	691
30–39	31	58	11	100	842
40–49	30	58	12	100	718
50–59	30	53	17	100	508
					2,759
				NA	28
					2,787
Education:					
Eighth grade or less	26	56	18	100	587
Part high school	28	59	13	100	725
High school graduate	37	55	8	100	842
Part college	31	58	11	100	328
College graduate or more	39	53	8	100	293
					2,775
				NA	12
					2,787
Income:					
Less than $2,000	18	46	36	100	155
$2,000–$2,999	16	55	29	100	152
$3,000–$3,999	15	64	21	100	174
$4,000–$4,999	24	62	14	100	243
$5,000–$5,999	35	56	9	100	379
$6,000–$6,999	33	58	9	100	344
$7,000–$7,999	33	60	7	100	280
$8,000–$9,999	38	55	7	100	426
$10,000–$14,999	41	54	5	100	423
$15,000 or more	38	57	5	100	110
					2,686
				NA	101
					2,787
Race:					
Negro	18	57	25	100	516
White	35	56	9	100	2,219
					2,735
				NA	52
					2,787

they are "very happy." Since our study design excluded people aged sixty and over, we have cut down severely on the age range and on the potential for a significant correlation between age and reported happiness. In the pilot study, which included a large number of elderly people, we found that the proportion reporting they were "not too happy" increased sharply after age sixty. For the age range we shall be considering in this study, however, age itself is a small consideration. The differences that do appear are probably a function of increased illness among the older respondents. Other evidence, e.g., Birren *et al.* (1963), suggests that there are few differences in adjustment measures between older and younger people when disease is absent.

Many past studies have indicated that the related factors of education and income and their resultant relation to socioeconomic status (SES) are of great importance to the happiness and psychological well-being of the individual. Indeed, Davis (1965, pp. 118–19) concludes, "It is clear that no further studies need be made to document the claim that lower SES is associated with lower mental health." Although further replication is not necessary, it is clear from the distributions in Table 3.3 that for our sample also there is a consistent relation between better education, higher income, and the probability of reporting that one is "very happy." What is not so clear, however, is the reason for this relationship. Much of the analysis reported in subsequent chapters is directed toward an investigation of the factors that lie behind this relation and toward a fuller understanding of the implications that differential levels of education and income have for those aspects of life important for producing and maintaining a high level of psychological well-being.

One demographic factor that has not received much attention is race. Davis (1965), in further analysis of Survey Research Center data on a national sample, shows that Negroes are less likely to report being "very happy" even when income is controlled. Because of the small number of Negroes in that sample, however, the findings are treated tentatively. Our sample enables us to do a more extensive analysis of racial differences.

Table 3.3 shows that there are marked differences in the proportion of whites and Negroes at different levels of reported hap-

piness. However, because of the great differences in education and income between the two racial groups, and because of the relationship already noted between education, income, and avowed happiness, this observed difference may simply be a reflection of the underlying correlation with education and income. When we look at the racial differences within various education levels (Table 3.4), we see that at each educational level, from two to three times as many Negroes as whites report that they are "not too happy." For both races unhappiness declines with higher education.

Less dramatic differences are found when income is controlled (Table 3.5). At the lower income level, the proportion reporting

Table 3.4 Race, Education, and Avowed Happiness, for Wave I (Per Cent "Not Too Happy")

Race	Education			
	Eighth Grade or Less	Part High School	High School Graduate	Part College
Negro	28 (207)	25 (173)	21 (92)	16 (44)
White	13 (369)	9 (540)	7 (741)	8 (567)

N	2,733	
NA	54	
Total N	2,787	

Table 3.5 Race, Income, and Avowed Happiness, for Wave I (Per Cent "Not Too Happy")

Race	Income						
	Less than $2,000	$2,000–$2,999	$3,000–$3,999	$4,000–$4,999	$5,000–$6,999	$7,000–$9,999	$10,000 or More
Negro	37 (105)	35 (79)	33 (67)	17 (72)	12 (106)	8 (36)	0 (14)
White	30 (46)	33 (69)	14 (106)	12 (167)	8 (605)	7 (660)	5 (512)

N	2,644	
NA	143	
Total N	2,787	

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that they are "not too happy" is greater for Negroes than for whites; but at higher income levels, the differences disappear. For both Negroes and whites, the proportion "not too happy" declines with higher incomes; but for whites the biggest change occurs at the $3,000 level, while for Negroes it does not occur until the $4,000 level.

The fact that greater differences in reported happiness occur between whites and Negroes at different educational levels than at different income levels suggests that Negroes are being deprived of some of the major economic benefits bestowed by a higher level of education. Such deprivation would occur if, as is likely, Negroes obtain poorer jobs than whites with comparable educations. Some evidence for this interpretation can be found when we look at the racial differences in reported happiness when both education and income are controlled (Table 3.6). Here we see that education is related to self-reports of happiness only for those

Table 3.6 Education, Race, Income, and Avowed Happiness, for Wave I (Per Cent "Not Too Happy")

Education and Race	Income		
	Less than $4,000	$4,000– $5,999	$6,000 or More
Eighth grade or less:			
Negro	38 (116)	13 (55)	8 (24)
White	27 (83)	9 (102)	6 (163)
Part high school:			
Negro	34 (86)	16 (49)	12 (26)
White	22 (60)	11 (134)	7 (333)
High school graduate or more:			
Negro	33 (49)	12 (34)	10 (40)
White	13 (78)	9 (235)	7 (975)

N	2,642
NA	145
Total N	2,787

who have low incomes (less than $4,000) and that the largest difference between Negroes and whites occurs among high school graduates or better who have incomes of less than $4,000. The fact that 33 per cent of the Negroes with a high school education or better are in this group, compared with only 13 per cent of the whites with similar education, indicates a large degree of relative deprivation in addition to the absolute deprivation of low income. Even among those in the higher income and education groups, Negroes are more likely to report being "not too happy," although the differences are not as great once the income level has risen above the $4,000 level.

Given the position of Negroes in American society, these findings are not too surprising. They are, nonetheless, very disquieting. When we look at the number of cases on which the percentages in these tables are based, we see a heavy concentration of Negroes in the low income and education groups. In our sample 40 per cent of the Negroes have an eighth-grade education or less, compared with 17 per cent of the whites; and 36 per cent of the Negroes have incomes of less than $3,000, compared with 5 per cent of the whites. But even for those Negroes who have managed to attain a higher socioeconomic level, there are additional problems that contribute to a lower level of happiness than is experienced by whites in similar positions. Such differences speak very eloquently as a testament to the degree to which Negroes are denied full participation in American society.

OTHER INDICATORS OF AVOWED HAPPINESS

As a partial check on the direct evaluation of the respondent's happiness, we asked other questions that appeared to tap the same dimension but enabled the respondent to answer in terms other than those related to happiness. If reports of avowed happiness are somewhat shifted toward socially desirable answers, it is possible that other types of evaluations of one's present life situation might not be subject to such constraints. Thus, for example, while someone might not like to admit that he is not happy, he might be willing to admit that he is not doing as well in life as he would like or that he might like to change many things in his life.

With these considerations in mind, we asked two further ques-

Table 3.7 Indicators of Life Satisfaction, by Communities, for Waves I and III (Per Cent)

Item	Detroit Suburb		Detroit Inner City		Chicago		Washington Suburban County		Ten Metropolitan Areas	
	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III
Desire for change in life:										
Life to continue much the same way	34	41	20	23	35	38	33	34	34	34
Like to change some parts	57	53	53	48	50	49	58	60	56	58
Like to change many parts	9	6	27	28	15	11	9	6	10	8
In getting things want out of life:										
Doing very well now[a]	84 }	29 }	50 }	21 }	68 }	26 }	86 }	30 }		27 }
Doing pretty well now }		61		47		57		62		65
Not doing too well now	16	9	50	31	32	16	13	8		8
N	542	427	446	350	252	177	1,277	1,001	270	208

[a] This category added on Wave III.

tions that would enable respondents to give us other evaluations of their present feelings about their satisfaction with life. One question was: "Think of how your life is going now. Do you want it to continue in much the same way as it's going now; do you wish you could change some parts of it; or do you wish you could change many parts of it?" The other question was: "When you think of the things you want from life, would you say that you're doing pretty well or you're not doing too well now in getting the things you want?"[3] The distribution of answers to these questions for Waves I and III in each of the five samples is given in Table 3.7.

We see that the pattern of responses is very similar to that elicited by the overall happiness question. The respondents in the Detroit suburb, the Washington suburban county, and the ten metropolitan areas all report levels of satisfaction with the way things are going in their lives commensurate with their reported levels of happiness. Similarly, those in the Detroit inner city and Chicago report much less satisfaction with their lives, just as they report less happiness.

At the individual level, we see (Table 3.8) a high level of asso-

[3] The response category "doing very well now" was added in Wave II to bring the categories in line with those of the overall happiness question.

Table 3.8 Coefficients of Association between Indicators of Life Satisfaction, by Sex, for Waves I and III (Gammas)

Indicator of Life Satisfaction	Overall Happiness	Getting What One Wants	Life Continue Same Way
	Men[a]		
Overall happiness	—	.69	.57
Getting what one wants	.74	—	.72
Life continue same way	.66	.67	—
	Women[b]		
Overall happiness	—	.70	.69
Getting what one wants	.77	—	.70
Life continue same way	.71	.65	—

[a] Wave I, N = 1,252; Wave III, N = 940. Actual N varies slightly because of differing number of "No answers."
[b] Wave I, N = 1,525; Wave III, N = 1,216.

ciation between the responses to the three questions concerning overall happiness and life satisfactions. On Waves I and III, in which the total sample was interviewed, the gammas for both men and women are .57 or higher for the association of these three items. While these interrelationships do not guarantee that our respondents are giving valid answers to our questions, they do add further evidence to support our belief that, for the most part, our respondents are giving fairly consistent responses to our inquiries about their feelings toward their current life situations. Beyond this type of evidence we cannot go.

In summary, the data we have from our own study, as well as those from past studies, suggest that direct reports of individual happiness have considerable validity and can provide a first step toward developing more refined measures of psychological well-being. While we cannot definitely prove that our respondents are giving valid reports of their feelings of happiness or unhappiness, the data do show the kinds of variations and consistencies in reports that would be consonant with the belief that people are in fact giving fairly accurate reports on what they feel is their present state of satisfaction with their lives.

In the chapters that follow, we shall develop several measures to tap what appear to be the two significant dimensions of happiness, or what we shall be calling a sense of psychological well-being, and use the self-reports of happiness as a validating criterion. We shall then investigate some of the more significant correlates of these two dimensions. In this manner we hope to lay the foundations for further inquiries into the meaning and determinants of psychological well-being.

4

Two Dimensions of Psychological Well-Being: Positive and Negative Affect

INTRODUCTION

In the theoretical framework outlined in Chapter 1, we noted that the concept of psychological well-being could best be seen as a function of two independent dimensions—positive and negative affect. This conceptualization was derived from our pilot study (Bradburn and Caplovitz, 1965), which was based on data from a probability sample of adults in four small Illinois communities. Although that sample was relatively large (2,006 respondents), it was limited in geographical area and, perhaps more importantly, in the size of the communities in which the respondents lived. The skeptical reader might ask: Would we find the same sort of structure if we shifted our attention to respondents living in large metropolitan areas in different sections of the country? The data from the present study will enable us to answer this question.

In this chapter we shall explore the development of operational measures for the two dimensions of affect. We shall first look at the individual items and their intercorrelations. Then, we shall discuss the construction of the scales to be used in this study and the relation of these scales to the measures of avowed happiness discussed in the previous chapter.

MEASUREMENT OF POSITIVE AND NEGATIVE AFFECT

In line with our general research strategy of seeking direct reports of experiences, we asked each respondent a series of questions concerning different pleasurable and unpleasurable experi-

ences that he might have had in the recent past. These items were the same as those used in the pilot study, with the addition of the item "that things were going my way" to the positive feelings battery and of the item "upset because someone criticized you" to the negative feelings battery.

While the items were selected to reflect a wide range of positive and negative experiences that would be common in a heterogeneous population, such as the one from which we were sampling, they do not constitute a probability sample of items from a population of possible positive and negative feeling states. Indeed, it would be difficult to know how to go about constructing such a sample of items since the limits of the population are not known.

Underlying our strategy, however, is the assumption that people tend to code their experiences in terms of (among other things) their affective tone—positive, neutral, or negative. For our purposes, the particular content of the experience is not important. We are concerned with the pleasurable or unpleasurable character associated with the experience. Thus, we phrased our questions in general terms, such as "Did you feel pleased about having accomplished something?" and "Did you feel proud because someone complimented you on something you had done?" rather than specifying the particular "something" that might have been accomplished or been the reason for the compliment.

Two examples may make this point clearer. We could have asked many different questions varying around a common theme, such as "pleased because you solved a difficult problem" or "pleased because you could relax and do nothing." For purposes of developing a measure of positive affect, the difference between those who get pleasure from solving difficult problems and those who get pleasure from doing nothing is irrelevant as long as responses to the items show a substantial degree of correlation. If there is, in fact, an underlying dimension of positive affect, it should show up in positive correlations among the pleasurable items because those who are low in positive affect would be unlikely to report pleasurable experiences, while those who are high would report having many such experiences.

We also could have asked a series of questions containing items such as "proud because you won a prize in a contest" or "proud

because someone complimented you on a party you had given" that would have given greater scope to the respondent's individuality. We suspected, however, that the number of people who would respond positively to such specific items would not be great enough to justify their use in a broad survey. They might be appropriate, however, if one were studying samples of a more restricted nature, in which many people might be involved in contests or in party-giving. For our study, it seemed most appropriate to make the items as general as possible and to focus attention on the affective tone of the feelings rather than on the particular experiences that gave rise to the feelings.

Another aspect of our research strategy was to ask questions in terms of a particular time focus—the past few weeks—rather than in terms of generalized time dimensions, e.g., do you feel this way "often" or "not very often," as is frequently done in psychological research. This concern for the recent past stemmed from our theoretical orientation toward the effects of current environmental forces on feelings of psychological well-being. In studying the effects of changes in the current environment, we are interested in current feelings and the changes in these feelings over time. If we asked for a more generalized report on feeling states, we would be measuring long-term trends that might reflect personality dispositions more than current environmental situations. While personality dispositions undoubtedly have some effect on the kinds of experiences a person has and probably on the way he interprets and remembers them, we believed that focusing attention on experiences and feelings in the recent past would enable us to discern better the relative contribution of environmental factors to psychological well-being.

The complete items used in the feelings batteries and the distribution of responses, both from our own sample and from several other NORC samples, are shown in Table 4.1. There are two interesting things to note in this table. First, the proportion of individuals responding "yes" to the positive items (with the exception of the item "on the top of the world") is higher than the proportion responding "yes" to any of the negative items. This difference suggests that positive affect will be greater than negative affect for the majority of the respondents. We have already seen in Chapter

3 that a majority of our sample reported being at least "pretty happy." Thus, this difference in response to positive and negative affect items is consistent with our theory that avowed happiness is a function of the relative strengths of positive and negative affect.

A second notable fact about Table 4.1 is that the proportion of "yes" answers to these items for our sample is remarkably similar

Table 4.1   Distribution of Responses to Feeling-State Items (Per Cent "Yes")

Feeling-State Item	Total Sample		National Sample[a]	Ten Metropolitan Areas Subsample of National Sample[b]
	Wave I	Wave III		
During the past few weeks did you ever feel . . .				
Positive feelings:				
1. Pleased about having accomplished something?	78	77	84	83
2. That things were going your way?	64	70	71	65
3. Proud because someone complimented you on something you had done?	67	66	71	63
4. Particularly excited or interested in something?	56	57	54	58
5. On top of the world?	29	33	33	38
Negative feelings:				
1. So restless that you couldn't sit long in a chair?	48	30	53	56
2. Bored?	38	33	34	34
3. Depressed or very unhappy?	33	30	30	30
4. Very lonely or remote from other people?	27	23	26	27
5. Upset because someone criticized you?	21	18	18	17
N[c]	2,787	2,163	1,469	174

[a] National Area Probability Sample with Quotas (NAPSQ), June, 1965.
[b] Random subsample in ten largest metropolitan areas from NAPSQ, January, 1966.
[c] Actual N varies slightly from item to item because of differing number of "No answers."

to that obtained on two other comparable independent samples taken at later times. One is a national area probability sample with quotas that was conducted in June, 1965; and the other is a random subsample of respondents in the ten largest metropolitan areas from a national area probability sample with quotas that was conducted in January, 1966. This stability in item responses suggests that while there may be considerable individual shifting of response, overall population changes are small and it would take a rather major national event to cause much short-run change in the level of psychological well-being of the population as a whole. One such event, the assassination of President John F. Kennedy, will be discussed in Chapter 11. On the whole, however, the data suggest that significant shifts in psychological well-being result from changes in the immediate life situation of the individual rather than from correlated movement over a large number of individuals in the population.

The grouping of items into positive and negative feelings is based on a cluster analysis of responses in our pilot study from men between the ages of twenty-five and forty-nine. In that analysis, the positive items were intercorrelated and the negative items were intercorrelated. The items in one cluster, however, were not correlated with those in the other, nor did the two clusters correlate negatively with one another, as had been originally anticipated.

Table 4.2 shows the Q-values of association for the ten items. The values above the diagonal of the matrix are for Wave I (January–February, 1963) and those below the diagonal are for Wave III (October–November, 1963). For both time periods we see the same pattern of relationships as was found in our pilot study. The items in the upper-left-hand box, comprising the positive affect cluster, and the items in the lower-right-hand box, comprising the negative affect cluster, show relatively high Q-values. The association between items in the two clusters, however, tends to be low, sometimes negative but often positive. The average Q-values for the positive items are .50 for Wave I and .56 for Wave III, while for the negative items the average Q's are .54 for Wave I and .56 for Wave III. On the other hand, the average Q-values between the positive and negative items are .03 for Wave I and .02 for Wave III.

Table 4.2 Q-values of Association between Items on Positive and Negative Affect Scales, for Waves I and III[a]

Item	Pleased	Proud	Excited or Interested	Top of World	Things Going Your Way	Bored	Upset	Restless	Lonely	Depressed
a. Pleased about having accomplished something		.72	.52	.58	.53	-.03	.16	-.01	-.10	-.10
b. Proud because someone complimented you on something you had done	.74		.45	.55	.41	.06	.25	-.02	.12	.12
c. Particularly excited or interested in something	.58	.51		.37	.23	.07	.21	-.02	.03	.08
d. On top of the world	.67	.48	.49		.66	.06	.19	-.02	.04	.14
e. That things were going your way	.41	.67	.36	.69		-.21	-.01	.04	.06	-.28
f. Bored	-.15	.00	.06	.04	-.24		.48	.51	.62	.60
g. Upset because someone criticized you	.16	.25	.30	.33	.06	.40		.41	.54	.56
h. So restless that you couldn't sit long in a chair	.09	.13	.07	.15	-.11	.53	.43		.46	.47
i. Very lonely or remote from other people	.04	.07	.12	.02	-.27	.63	.57	.57		.71
j. Depressed or very unhappy	-.12	.00	.03	-.02	-.43	.58	.58	.55	.76	

a Q-values for Wave I (N = 2,787) are above the diagonal; Q-values for Wave III (N = 2,163) are below the diagonal.

Since the independence of the clusters was a highly unexpected finding in our pilot study and since the cluster analyses were made on the basis of male respondents only, we have calculated separate Q-value matrices for men and women in Wave I of our new sample. These matrices are shown in Table 4.3, with the Q's for the women above and for men below the diagonal. Again, we see the same pattern of associations—high intercorrelation among the positive affect items (average Q's of .50 for women and .51 for men), high intercorrelation among the negative affect items (average Q's of .54 for both men and women), and little or no relationship of items between the two clusters (average Q's of .02 for men and .09 for women).

We thus conclude that the structure of the two independent dimensions holds not only for the respondents in our sample of small towns, but also for respondents in the large metropolitan areas with men and women taken separately. Furthermore, this structure is stable across time. These replications of our earlier findings give us greater confidence that we are dealing with essentially two independent dimensions of affect and that we may legitimately combine responses within the positive cluster and within the negative cluster to form two overall affect scales—positive and negative. Thus, each respondent was given a score of 1 for each "yes" response to the items in a cluster. The sum of these scores ranges from 0 to 5 for both the Positive and Negative Affect Scales.

As we might expect from the relatively low association between the individual items comprising the two clusters, the clusters themselves show very small relationship to each other. The gamma coefficients of association between the two scales for each of the four waves are shown in Table 4.4. In general, the level of association is low, but slightly positive. There is some variability in the magnitude and sign of the coefficients among the different sampling points and at different times, but they mostly hover in the range of $\pm .15$.

Table 4.5 gives the gammas between positive and negative affect for men and women separately on each of the four waves. There is little difference between the sexes, but the men tend to have a higher positive gamma than the women. Cross-tabulations indicate that this small difference is primarily due to the lower responsive-

Table 4.3 Q-values of Association between Items on Positive and Negative Affect Scales, by Sex, for Wave 1[a]

Item	Pleased	Proud	Excited or Interested	Top of World	Things Going Your Way	Bored	Upset	Restless	Lonely	Depressed
a. Pleased about having accomplished something		.70	.50	.55	.51	-.07	.14	-.22	-.02	-.13
b. Proud because someone complimented you on something you had done	.75		.46	.58	.43	.05	.22	-.18	.10	.04
c. Particularly excited or interested in something	.54	.43		.39	.19	.06	.16	-.09	.01	.07
d. On top of the world	.61	.51	.35		.66	.04	.16	-.21	.03	.27
e. That things were going your way	.57	.39	.27	.65		-.22	-.07	.04	.25	-.28
f. Bored	.01	.07	.08	.09	-.19		.46	.53	.63	.60
g. Upset because someone criticized you	.18	.30	.27	.22	.06	.50		.38	.53	.56
h. So restless that you couldn't sit long in a chair	.24	.18	.16	.20	.05	.48	.45		.49	.46
i. Very lonely or remote from other people	.20	.15	.06	.06	-.17	.61	.56	.42		.71
j. Depressed or very unhappy	-.07	.21	.10	-.01	-.28	.61	.56	.48	.72	

[a] Q-values for women (N = 1,528) are above the diagonal; Q-values for men (N = 1,259) are below the diagonal.

ness of men, with a resulting tendency for men to have some concentration in the zero-zero category; that is, there is a slightly greater probability of men giving "no" responses to the entire feeling battery. Overall, however, we would conclude that there are no significant differences between men and women in the structure of the relationships.

AVOWED HAPPINESS AND POSITIVE AND NEGATIVE AFFECT

Although the two scales show little relationship to one another, each is related in the opposite direction to respondents' self-reports

Table 4.4 Coefficients of Association between Positive and Negative Affect, by Community (Gammas)

Community	Wave			
	I	II	III	IV
Total	.08 (2,735)	.08^a (479)	.02 (2,109)	.04^a (442)
Washington suburban county	.13 (1,256)	–	.07 (984)	–
Detroit suburb	.08 (538)	.08 (479)	.14 (425)	.04 (442)
Detroit inner city	.04 (430)	–	–.20 (335)	–
Chicago	.04 (247)	–	–.06 (161)	–
Ten largest metropolitan areas	.11 (264)	–	.02 (204)	–

^{a} Detroit suburb only.

Table 4.5 Coefficients of Association between Positive and Negative Affect, by Sex, for Total Sample (Gammas)

Sex	Wave			
	I	II^a	III	IV^a
Men	.12 (1,235)	.09 (214)	.04 (923)	.15 (196)
Women	.04 (1,500)	.02 (265)	.00 (1,186)	–.10 (246)

^{a} Detroit suburb only.

of happiness. This finding also replicates one in the pilot study. Table 4.6 presents for both Waves I and III the average ridit values and gamma coefficients between the Positive and Negative Affect Scales and the three general life-satisfaction questions.[1]

Because the type of analysis presented here will be used frequently throughout the remaining portions of the book, it might be well to remind the reader of the statistical methods discussed in Chapter 2. The two types of statistics shown in Table 4.6 are the average ridit values for the affect measures for each of the response categories of the independent variables—i.e., the life-satisfaction questions—and the gamma coefficients of association between these questions and the affect measures. As noted earlier, both of these statistics are "prediction-of-order" statistics and have similar interpretations.

The average ridit value of a particular response category tells us the probability that a person selected at random from those who responded in that category would be higher on the dependent variable, i.e., the affect measure, than a person selected at random from a reference class—in this case, the respondents from the ten largest metropolitan areas sample. More importantly, however, the difference between the average ridit values for separate response categories, when added to the average value for the reference class as a whole, gives the probability that for two persons chosen at random, the one that is higher on the particular response category will also be higher on the affect measure. The gamma coefficient essentially tells us how much better off we are in predicting a person's scores on the particular affect measure when we know his response to a life-satisfaction question, compared with when we do not know his response to that question.

Thus, the average ridit values give us a measure of probability of similar order for particular response categories, while the gamma coefficient gives us a measure of probability of similar order for

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[1] These questions are: (1) "Taking all things together, how would you say things are these days—would you say you are very happy, pretty happy, or not too happy?"; (2) "In getting the things that you want out of life, would you say that you are doing pretty well, or not too well right now?"; and (3) "Considering the way your life is going at this moment, would you like it to continue in much the same sort of way, like to change some parts of it, or would you like to change many parts of it?"

Table 4.6 Selected Happiness Indicators and Affect Scale Scores, for Waves I and III (Average Ridits[a] and Gammas)

Happiness Indicator	Positive Affect Scale		Negative Affect Scale	
	Wave I	Wave III	Wave I	Wave III
Taking all things together, how would you say things are these days—would you say you are:				
Very happy	.55 (874)	.57 (652)	.43 (883)	.42 (653)
Pretty happy	.44 (1,538)	.44 (1,275)	.51 (1,545)	.52 (1,278)
Not too happy	.31 (325)	.28 (195)	.69 (327)	.71 (196)
	*	*	*	*
Gamma	.34 (2,737)	.38 (2,122)	−.33 (2,755)	−.38 (2,127)
In getting the things you want out of life, would you say that you are doing:				
Very well		.56 (592)		.45 (591)
Pretty well	.49[b] (2,141)	.46 (1,261)	.48[b] (2,156)	.50 (1,267)
Not too well	.34 (586)	.26 (267)	.61 (589)	.65 (266)
	*	*	*	*
Gamma	.37 (2,727)	.36 (2,120)	−.35 (2,745)	−.27 (2,124)
Considering the way your life is going at this moment, would you:				
Like to continue much the same way	.49 (862)	.51 (726)	.42 (867)	.42 (727)
Like to change some parts of it	.46 (1,541)	.47 (1,178)	.53 (1,553)	.53 (1,184)
Like to change many parts of it	.35 (339)	.31 (215)	.64 (339)	.66 (213)
	*	*	*	*
Gamma	.16 (2,742)	.20 (2,119)	−.34 (2,759)	−.36 (2,124)

a In this and subsequent tables, an asterisk (*) at the end of a column or row is used to indicate that the first and last figures in that column or row are significantly different from one another at the 5 per cent level of confidence. An * between adjacent figures within a table indicates that the two figures are significantly different. In the interests of clarity, only those differences that are important for the overall analysis are marked.
b On Wave I this question had only two response categories: "Pretty well" and "Not too well."

two variables as a whole. Although gamma coefficients are valuable as a summary statistic with which to assess the relative strength of the relationships between a number of independent variables and a particular dependent variable, they often obscure aspects of relationships that are important. For example, a low gamma may result from a low degree of association between two variables or from a substantial relationship over part of the range of values for the two variables but no relationship between them at one end of their joint distribution. Ridits, on the other hand, enable us to observe the relationship at different points along the distribution and to see if the relationship is a linear one. The use of ridits also allows us to look at the relationship among several variables at the same time in a manner similar to a multivariate contingency table. While the use of the net-weighted partial gamma enables us to look at the strength of the relationship between two variables, controlling for other variables, we are still basically restricted to looking at two variables at a time.[2]

Inspection of Table 4.6 indicates that the gamma coefficients are of about the same magnitude but of opposite sign for each of the scales on both Waves I and III. Differences in average ridit values for the various response categories tell the same story, with larger differences occurring between the categories where there is a stronger overall relationship.

The exception is the relation between positive affect and the degree of change the respondent wants in his life. The use of the ridit values, however, gives us a better view of what is happening here. Inspection of the ridit values indicates that the reduced gamma value is due to the differences in positive affect between those who want to change many parts of their lives and those who want it to continue the same way or want to change only some parts. There is very little difference in the probability of being high on positive affect between those who wish their lives to continue in much the same way and those who want to change some parts of it. Apparently, the kind of active dissatisfaction that would lead a person to desire a change in his life is primarily related to the presence or absence of negative affect and has relatively little con-

[2] For a fuller discussion of ridits and gamma coefficients and the computation of the ridit values for the affect measures, see Chapter 2, pp. 31–34, and Appendix 2.

nection with the presence or absence of positive affect except among those who are really dissatisfied and want to make many changes in their lives.

THE AFFECT BALANCE SCALE

The relationships reported above consider a person's score on only one dimension of affect at a time and disregard his position on the other dimension. Since the two dimensions are independent of one another, knowledge of a person's standing on one dimension will not enable us to predict his position on the other. Because the two dimensions are related to other measures of well-being in opposite directions, we would expect that someone who was high on positive feelings and low on negative feelings would be likely to be "very happy," while someone who was low on positive feelings and high on negative feelings would be unlikely to be "very happy" but much more likely to be "not too happy." Thus, the difference between the two scores would appear to be a good indicator of a person's feelings of well-being.

Combining the two scales, however, presents certain methodological problems. While it seems fairly clear that a person who scores 5 on the positive feelings index and 0 on the negative feelings index will have a high probability of being "very happy," it is not clear whether a person whose score is 5 on the positive feelings index and 4 on the negative feelings index will be more likely to be "very happy" than a person whose score is 1 on the positive feelings index and 0 on the negative feelings index or whether he will be equally likely to be "very happy." Nor is it clear whether one would expect any differences between those who score 0 and those who score 3 on both indices. The question then is whether the difference between the scores on the two indices is the only important factor or whether the absolute level of the scores is also important.

In our previous research we found that the level of feeling states apparently had very little relation to self-reports of happiness and that the discrepancy between the scores on the positive and negative indices was the important element in determining the relationship of our measures of feeling states, or affect, to self-reports of happiness.

Table 4.7 shows the relationship of the difference between posi-

Table 4.7 Relation of Affect Balance Scale (Positive Affect —
Negative Affect) to Self-Ratings of Happiness at Each Level of
Difference, for Wave I

Affect Balance Scale		Difference	Per Cent "Very Happy"	Per Cent "Pretty Happy"	Per Cent "Not Too Happy"	Total Per Cent	N
Positive > negative feelings:							
4	0	+ 4	63	36	1	100	90
4	1	+ 3	61	36	3	100	101
3	0		50	47	3	100	178
4	2		52	48	0	100	79
3	1	+ 2	49	45	6	100	160
2	0		36	60	4	100	172
4	3		46	52	2	100	65
3	2	+ 1	28	62	9	99ª	109
2	1		29	65	6	100	208
1	0		35	62	3	100	154
Positive = negative feelings:							
4	4		39	56	5	100	78
3	3		26	70	4	100	92
2	2	0	26	65	10	101ª	133
1	1		33	62	5	100	120
0	0		34	61	5	100	157
Positive < negative feelings:							
0	1		24	62	15	101ª	109
1	2	− 1	16	64	20	100	81
2	3		16	68	16	100	99
3	4		25	56	19	100	93
0	2		8	55	37	100	89
1	3	− 2	20	57	24	101ª	76
2	4		8	57	35	100	103
0	3	− 3	13	48	39	100	62
1	4		6	55	39	100	71
0	4	− 4	9	34	57	100	47

N	2,726
NA on positive or negative feelings	51
NA on happiness	10
Total N	2,787

ª Not 100 per cent because of rounding.

tive and negative feelings and self-reports of happiness on Wave I. In order to have enough cases for meaningful analysis, we collapsed scores at the ends of the distribution with lowest frequencies. Thus, we combined scores of 0 and 1 on the Positive Affect Scale and of 4 and 5 on the Negative Affect Scale, which resulted in a range of scores from 0 to 4 on each scale.

As one moves from a predominance of positive over negative feelings through a balance of the two to a predominance of negative over positive feelings, the percentage reporting that they are "very happy" declines. As the balance tips in the direction of negative feelings, the proportion reporting that they are "not too happy" increases sharply. At each difference level, the amount of feelings reported has little consistent relationship with the self-reported level of happiness. One exception to the lack of importance of feeling level occurs with people who attain a score of 4 on the positive feelings index. Such people are consistently more likely to report being "very happy" than are others at the same level of difference between positive and negative feelings, and they are even more likely to report being "very happy" than are those who have a greater difference score but at a lower level of affect. This result may be due to the fact that 4 was the maximum possible score and may represent an artificial top limit beyond which further discriminations would be possible if we had used more items.

The data presented above suggest that the difference between the scores on the positive and negative feelings indices, which we have named the Affect Balance Scale (ABS), is a good indicator of an individual's current level of psychological well-being. In constructing the ABS, we first combined the points of lowest frequency on the two affect scales, as discussed above; and then we subtracted each individual's score on the Negative Affect Scale from his score on the Positive Affect Scale, yielding a distribution of scores running from − 4 to + 4. For computation purposes, a constant of + 5 was added to each sum, giving a scale with values of + 1 to + 9.

Further confirmation of the ABS as an indicator of psychological well-being is seen in its relationship to other items that may be presumed to indicate a greater satisfaction with one's life. Table 4.8 shows the average ridit values and the gamma coefficients for

Waves I and III between the ABS and the three questions that were used as general indicators of happiness and life satisfaction. For the overall happiness question and the question on getting what one wants out of life, the relationship is stronger with the

Table 4.8 Selected Happiness Indicators and Affect Balance Scale, for Waves I and III (Average Ridits and Gammas)

Happiness Indicator	Affect Balance Scale	
	Wave I	Wave III
Taking all things together how would you say things are these days—would you say you are:		
Very happy	.60 (871)	.62 (649)
Pretty happy	.45 (1,533)	.45 (1,260)
Not too happy	.23 (322) *	.21 (193) *
Gamma	.45 (2,726)	.51 (2,102)
In getting the things you want out of life, would you say that you are doing:		
Very well		.58 (587)
Pretty well	.49[a] (2,132)	.48 (1,249)
Not too well	.31 (584) *	.25 (264) *
Gamma	.47 (2,716)	.40 (2,100)
Considering the way your life is going at this moment would you:		
Like it to continue much the same way	.56 (858)	.57 (720)
Like to change some parts of it	.46 (1,535)	.46 (1,168)
Like to change many parts of it	.30 (337) *	.26 (211) *
Gamma	.33 (2,730)	.36 (2,099)

[a] On Wave I this question had only two response categories: "Pretty well" and "Not too well."

ABS than with either of the component scales taken separately. We would expect such a result since each of the individual scales was related to the questions in the opposite direction (Table 4.6). In the case of the question concerning the desire to change one's life, the gamma coefficient with the ABS is of the same magnitude as that with the Negative Affect Scale alone, although of opposite sign because the ABS is scored so that a high score means an excess of positive over negative affect. When only one of the component parts of the ABS has a strong relationship with a particular dependent variable, the addition of the two affect components does not add anything to the overall relationship. We shall see this phenomenon many times in subsequent chapters.

The Affect Balance Scale has some advantages and some disadvantages as a measure of psychological well-being. Although the degree of association between the ABS and self-ratings of happiness is far from perfect, it is great enough for us to view the ABS as an indicator of the same underlying dimension of well-being. Because the ABS is obtained by the combination of responses to several different items, it probably would be less susceptible to distorting influences than is the case with "obvious" questions such as the self-rating of overall happiness. By relying on a number of items rather than a single one, we would hope that various errors of measurement would cancel each other out and leave us with a more "valid" measure.

Another advantage is that it enables us to make finer discriminations among individuals, distinguishing when necessary as many as nine points along the scale, compared with only three points using the self-reports of happiness. One disadvantage of the question on avowed happiness is the large group in the middle among whom it is difficult to distinguish. Since it seems unlikely that all of these individuals are equally happy, the use of a scale that permits finer discrimination should enable us to have greater confidence in our conclusions than might be the case when observed covariation depends strongly on a small number of cases at one end of the distribution.

Perhaps the most important advantage of the ABS, in addition to being a measure of well-being, is that it gives us a richer conceptual framework for investigating the correlates of psychological

well-being. As we shall see in later chapters, many types of experiences relate only to one type of affective experience and influence the sense of well-being only through one side of the ABS. In these cases, we shall be concerned with the measure for that one type of affect, either positive or negative. Where experiences are related to both positive and negative affect, we shall use the ABS as the best measure of the relationship between these experiences and psychological well-being.

5

Stability and Change in the Affect Measures

RELIABILITY OF MEASURES OF PSYCHOLOGICAL WELL–BEING

Measurement of such an elusive phenomenon as psychological well-being is subject to various types of error. These errors of measurement may come from many different sources, such as the social desirability of certain responses, the way in which a particular interviewer asks a question as contrasted with the way another interviewer might ask it, or from some event that has a short-term effect on the respondent's mood at the time of the interview, such as being interrupted by a telephone call or spilling a cup of coffee. All such events are "real" in the sense that they contribute meaningfully to the responses given by a particular individual. They are "errors," however, from the point of view of the social scientist because they tend to mask the identification of the "true" underlying dimension.

In general, measurement errors fall into two types. On the one hand, error may be something specific to the time, place, and persons involved in the interview situation. For example, if the respondent had been leading a rather lonely life and had not seen anyone for some days before the interview, he might have "truly" felt lonely and bored. If he liked the interviewer and found the interview situation interesting, he might forget that he had felt lonely and bored and say "no" when asked if he had felt that way during the past few weeks. However, if the interview was a neutral experience, he might remember the way he had been feeling and

say "yes" when asked about his feelings of boredom and loneliness in the recent past. Thus, at least conceptually, the "true" state of affairs can be distinguished from the reported state of affairs, which may be influenced by transitory factors associated with the specific interview situation. If the interview had occurred on another day, in another place, or with another interviewer, we might expect some different answers.

The second type of measurement error results from the selection of questions. We noted in the previous chapter that the ten questions about feeling states were selected to be representative of affective experiences common throughout the population. If we selected a second set of ten questions, we would expect that some people who report having many of the positive or negative feelings we ask about in our actual set of questions would be classified as having relatively few positive or negative feelings on the basis of their responses to this second set of questions. Such variations would be due not so much to differences in the total amount of positive or negative affect experienced but to the peculiarities of the sample of questions we used. This type of error is analogous to sampling error and results from the fact that we could ask respondents only a small number of questions. Lengthening the list of questions would have reduced the errors due to this source.[1]

Errors of the types we have been discussing are usually called errors due to unreliability of the measuring instrument. Such a conception implies that using somewhat different questions designed to tap the same dimension or asking the same question at a different time or place or with a different interviewer would produce variation in the scores of an individual *even though there had been no change in his "true" feelings*. While we must always work with the responses given us by the respondent, it is important to distinguish conceptually between the individual's "true" score and his observed score, the latter being the combination of his "true" score and the various effects of measurement error.

The reader who is not familiar with the problems of psychological measurement may find disconcerting the existence of so many possible ways in which an observed response can be distorted by

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[1] For a full discussion of types of errors, see Cronbach (1960).

specific and transitory factors. He thus may be suspicious of any study that makes statements about subjective states when they are based on such obviously error-prone measurement techniques. In practice, however, the effects of errors due to unreliability are not so bad as they appear in the abstract. The potentially disastrous consequences of unreliability are mitigated if, as is commonly assumed, such error is random and is as likely to produce a positive effect as it is to produce a negative effect on an individual response. In the aggregate, the errors tend to cancel one another out, so statements based on the responses from many individuals are not, on the whole, strongly affected by unreliability. Moreover, the general effect of random error is to reduce the correlation between the variables subject to such error, and thus the reported measures of association usually tend to underestimate the "true" relationship between variables unless some correction factor is introduced. In the extreme case, a perfectly unreliable measure would not correlate with any other variable since it would act as a purely random variable.

Not all measurement error is due to unreliability, however. Errors such as those resulting from the social desirability of responses or from a tendency on the part of some persons to agree with any statement regardless of its content may cause serious problems in the analysis of the data. Even in these cases, however, it is usually possible to make valid statements about behavior.

The least serious consequence of such factors is to shift the marginal frequency of items in either a positive or negative direction. We saw an example of this type of effect in Chapter 3 when we noted that the proportion reporting that they were "very happy" was smaller when respondents filled out a self-administered questionnaire than when they reported on their happiness to an interviewer. We interpreted this difference as resulting from the belief that it was more socially desirable to say that you were "very happy." Thus, when a respondent is talking with an interviewer, he may be motivated to tell the interviewer things that will put him in a good light; but when he is filling out an anonymous questionnaire, he may be more honest about his reporting. It seems likely, however, that the social desirability of the responses will influence everyone. The net effect of the force will be to produce a higher

percentage reporting that they are "very happy," but it should not change the relative position of individuals or the relationship between self-reports of happiness and other variables.

If, however, people are differentially motivated by the social desirability of a particular response, then the interpretation of some observed relationships may be affected. For example, if people who are upwardly mobile are sensitive to the social desirability of a response and those who are not mobile are not so affected, a correlation between social mobility and an item, such as avowed happiness, would be increased by the bias. Empirically, differential correlations of this sort are difficult to track down. Such detective work depends on having data in which one can look at the correlation between, for example, mobility and avowed happiness under conditions where social desirability of the responses is present and where it is absent. In practice, unless there are strong reasons for believing otherwise, it is assumed that the potential biasing effects of such factors influence everyone alike and do not seriously distort the meaning of the observed relationship.

Errors due to unreliability do not usually have a serious effect on the conclusions that one might draw from the cross-sectional analysis of data, since the errors tend to cancel one another out. Such, however, is not the case when one is dealing with data on changes over time. Because we have conceptualized unreliability as stemming in part from factors that are specific to the time, place, and persons involved in the interview situation but have nothing to do with the underlying "true" score of the individual, we would expect subsequent interviews to produce a number of observed changes in scores that are a result of the unreliability of the measures rather than a result of any "true" change in the individual's scores. When the analyst's primary interest is in the change that has occurred between two time periods, he is confronted with the thorny problem of deciding whether the observed amount of change results from some "true" change in the variable being measured or simply from the unreliability of his measure.

Before describing a method for coping with this problem, we should mention one type of situation in which the effect of unreliability is not so serious, in the sense that it will not usually affect the validity of the conclusions drawn from the data. This situation occurs when the analyst wishes to compare the direction of change

in a variable between two subgroups in the population. For example, if he wishes to know whether those who increased their incomes between Time 1 and Time 2, compared with those who did not, also increased in the likelihood of reporting that they were happy, measurement unreliability would act to reduce the correlation of the changes. If the error is a random variable, it should not differentially affect the amount of change in the two groups. If the measurement of avowed happiness had very low reliability, i.e., was subject to considerable influence by the specifics of the time, place, and interviewer, so much random change would be observed that it would be difficult to establish any differential change between subgroups, no matter how strong the underlying correlation. As long as the error is random, however, it will not produce a relationship when there is none.

Thus, we have two motives for being interested in the reliability of our measures of psychological well-being. First, we want to be sure that the measures are sufficiently stable over time so that we can detect differential change among subgroups of our sample, and we want to be reasonably sure that a lack of differential change between subgroups is not due to the low reliability of the measure. Second, we are interested in getting estimates of the amount of change that might be ascribed to the unreliability of the measure in order to ascertain whether observed changes between time periods is a "real" change or whether it is change due to the random effects of changes in the time, place, or persons involved in the interview situation.

MEASUREMENT OF RELIABILITY

Reliability estimates for our principal dependent variables—the positive and negative affect items—were obtained in the following manner. From a national area probability sample with quotas drawn for another study, a random subsample of 200 respondents from the ten largest metropolitan areas in the country was selected to participate in a reliability study. For these 200 cases, a one-page insert containing the ten feeling-state questions and the three questions concerned with overall ratings of happiness was placed near the end of a larger interview schedule. Reliability data were collected in conjunction with NORC's normal interview validation procedures. Area supervisors told respondents that they were

checking to see whether the interviewers had correctly recorded the respondent's answers and that they would like to ask the same questions again. The supervisors then asked the questions on happiness and positive and negative feelings.

The average time interval between the two interviews was three days. All of the original interviews were conducted in person by regular NORC interviewers. For one-half of the follow-up interviews, personal interviews were conducted; for the other half, the normal validation procedure of telephone interviews was used. No significant differences were found between the two types of follow-ups. All telephone and personal validation interviewing was done by the same person in each city. In all cases this person was not the initial interviewer. The total number of cases with complete data for both interviews was 174. Losses were due either to the difficulty in contacting the respondent again within the short time period or to the respondent's refusal to answer the questions again. Analysis of the responses to the first interview suggest that there were no significant differences between those who responded the second time and those who did not respond or could not be contacted in the time available.

For each feeling-state item, we computed coefficients of association (Q's) between the responses given by the respondents during the first interview and their responses given to another interviewer three days later. For each individual, we also computed scores on the Positive and Negative Affect Scales and on the Affect Balance Scale (ABS) in the manner described in Chapter 4 and computed a gamma coefficient between the scores at the two time periods. These coefficients are shown in Table 5.1. The Q-values for the individual items are uniformly high, with all except one being over .90; while the gammas for the three scales are somewhat lower, around .80.[2] As we shall see later, these coefficients are consider-

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[2] It is surprising that the scales should have less stability than the items since one of the purposes of using a scale rather than individual items is to increase the reliability of the measurement. This difference appears to be a function of the statistic used. Although gamma and Q are directly comparable, i.e., equal for the 2 × 2 case, gammas for variables with three or more categories tend to be lower in absolute value than Q's. The differences here are most likely due to moving from 2 × 2 comparisons to 5 × 5 and 9 × 9 comparisons.

ably higher than the corresponding coefficients between scores over much longer time periods, e.g., three and nine months.

We interpret these high coefficients to mean that stability of response is sufficient to enable identification of meaningful change when it occurs, even though repeated measurement does produce some change in responses. Had the coefficients been considerably lower, say in the range of .50 to .60 over such a short period of time, it would have indicated that there was considerable short-run change or error and that we would have great difficulty in separating meaningful change between interviews from the change that would have resulted from the low reliability of the measures. In this study, we view the amount of change that occurred between the interviews in our reliability study as "error" because we consider it a function of factors specific to the interview situation rather than reflective of real changes in the underlying dimension of positive and negative affect, which is our primary concern.

Asking the same questions at two points in time close together raises the possibility of a test-retest effect. Since the questions we asked were subject to a social desirability effect, it seems not unlikely that being asked the same questions again within such a

Table 5.1 Coefficients of Association between Affect Items and Scales at Three-Day Interval (Q's and Gammas)

	Q-value
Positive affect items:	
Excited or interested in something	.86
Proud because someone complimented you	.95
Pleased about having accomplished something	.91
On top of the world	.96
Things going your way	.91
Negative affect items:	
So restless that you couldn't sit long in a chair	.90
Very lonely or remote from other people	.91
Bored	.92
Depressed or very unhappy	.90
Upset because someone criticized you	.97
Scales:	Gamma
Positive affect	.83
Negative affect	.81
Affect Balance Scale	.76

N = 174

short time might be interpreted by some respondents as questioning whether they were really as happy or unhappy as they had indicated in the first interview. If such were the case, there might be a tendency for respondents to give more socially desirable answers the second time, i.e., report more positive and less negative feelings the second time.

We see in Table 5.2 a slight tendency for the proportion of "yes" responses to the positive items to increase and of "no" responses to the negative items to decrease between the first interview (T_1) and second interview (T_2). For most items these are trivial changes and are not statistically significant.[3] When combined, however, these small effects do produce a slight, but statistically significant, shift in the marginals for the Positive and Negative Affect Scales. We would conclude, then, that there is a slight retest effect tending to shift the scale scores in the more positive direction. We shall see later, however, that this effect disappears over

[3] The test for the stability of the marginal distributions is that suggested by McNemar (1962) for the significance of changes in correlated proportions.

Table 5.2 Marginal Distribution of Responses to Affect Items at Three-Day Interval (Per Cent "Yes")

Item	T_1	T_2
Positive affect items:		
Pleased	83	84
Things going your way	65	79
Proud	63	67
Excited or interested	58	55
On top of world	38	40
Per cent "high" on Positive Affect Scale	43	47[a]
Negative affect items:		
Restless	56	45
Bored	34	26
Depressed or very unhappy	30	24
Lonely	27	25
Upset	17	18
Per cent "low" on Negative Affect Scale	54	62[b]
N	174	174

[a] χ^2 for difference = 5.06, $p < .05$.
[b] χ^2 for difference = 4.57, $p < .05$.

the longer periods of time that occurred between our various waves of interviewing.

In summary, our investigations of short-run changes in responses to the feeling-state items indicate that a small amount of change occurs between repeated asking of the same questions and that this change is generally in the more socially desirable, i.e., "happier," direction. On the whole, however, the changes are small. Thus, we expect that much of the change we observe over longer periods of time will be "real" change and not a result simply of the unreliability of our measuring instruments.

STABILITY AND CHANGE IN AFFECT LEVEL

In studying change over time there are two distinct kinds of change that might interest one. First, there is change at the group level. Did the sample being studied change its general level of positive or negative affect? Thus, did the group as a whole, or did significant subgroups, become generally happier or unhappier, increase or decrease their level of positive affect, increase or decrease their level of negative affect? This is the type of question we asked when we looked at the test-retest effect. In order to answer such questions, the analyst is concerned with changes in the marginal distribution of the Positive and Negative Affect scales. Did the proportion classified as having "high" positive affect increase or decrease between the two time periods under consideration? For this type of question, we can observe the changes in the mean ridit values for particular groups.

The second kind of change is at the individual level. How many individuals made real changes in their affect level? If it can be shown that some real change occurred, then one can investigate the characteristics of the changers. For example, how do those who increased in positive affect differ from those who remained at the same level or decreased in positive affect? It is at this point that the estimates of change due to the unreliability of the measuring instrument become important. We anticipate that there will be some apparent change even though there may be no real change because the reliability of the measures is less than 1.00. If this change due to unreliability were large, then we would have difficulty in identifying the real change that occurred.

It should be noted that even though there may be no significant change in the marginal distributions, that is, no overall shift in affect level for the sample as a whole, considerable individual change is possible. Such a state of affairs would occur if the same number of people changed from high to low as changed from low to high on a particular measure. Although such a possibility might seem rather unusual at first glance, it is in fact a fairly common occurrence in studies of change and has a very reasonable explanation.

We assume that a person's affect level is primarily a function of things that happen to him personally or to those in his immediate environment, rather than a function of things that happen in the world around him and have relatively small impact on him as an individual. It is reasonable to expect considerable individual change between any two time periods because some people will have had good and some people bad experiences that will cause a change in their net affect level. Unless there is some major event that changes the total number of good or bad experiences occurring in the population, no overall shift in the marginal distributions of positive and negative affect is likely.

An example may clarify this difference between change at the group and at the individual level. Suppose that everyone who got married became happier, everyone who got divorced or widowed became less happy, and those who did not change their marital state did not change their level of happiness. If we measured the level of reported happiness in the population at two different time periods, we would find a number of individuals who had married and became happier, a number who had become divorced or widowed and become less happy, and a majority who had done neither and had remained at the same level of happiness as they had previously reported. We would thus observe some individual change. Assuming that our measures were perfectly reliable, the observed change would be a function of the total number of persons getting married, divorced, or becoming widowed. Whether or not the total population became happier, unhappier, or remained the same would be a function of the ratio of marriages to divorces and deaths. If there were more marriages than divorces or deaths, the average happiness in the population would increase; if there were less marriages than divorces and deaths, the average would

go down; and finally, if the number of marriages equalled the number of divorces and deaths, there would be no change in mean happiness for the population, although there would still be considerable individual change. Empirically, of course, things are much more complicated, not only because of the unreliability of measurement but also because changes in happiness are not a simple function of one kind of experience but result from many kinds, each one of which has some probability less than 1.00 of being associated with a change in happiness level.

In order to determine whether a real change exists in our measures of affect, either at the individual or group level, between waves of interviewing, we shall examine the changes that occurred across the four waves of interviewing in the Detroit suburban sample (Waves I–IV) and between the two waves of interviewing for the entire sample (Waves I and III).

Our method for ascertaining whether change occurred at the individual level is straightforward. For the respondents in our reliability study, we constructed Positive and Negative Affect Scales and cross-tabulated the scale scores at the two time periods, which were three days apart. We then computed the proportion of individuals with each score who had the same or different scores at the second time period. These proportions can be considered transition probabilities for changing from one score at Time 1 to another score at Time 2, given that there is no real change. For example, if a person had a score of 0 on the Negative Affect Scale at Time 1, the probabilities were .86 that he would still have a 0 at Time 2 and .14 that he would increase his score. Similarly, if he had a 1 at Time 1, the probabilities were .28 that he would decrease his score, .55 that he would remain the same, and .17 that he would increase his score on the Negative Affect Scale.

The transition probabilities were computed for each score to every other score for both the Positive and Negative Affect Scales. They were then applied to the observed distribution of scale scores at each time period under consideration in order to generate a matrix of expected scores for the following time period. This matrix, which indicates the amount of change expected simply on the basis of the unreliability of our measures, can then be compared with the actual matrix obtained by cross-tabulating the scores for

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the same individuals on two different waves of interviewing. The matrix comparison is made by computing the actual proportion of cases that changed scores between two waves and the proportion that we expected to change by applying the transition probabilities. We then express these two proportions as a ratio of actual to expected change. If there has been no real change, the proportion actually changing should be equal to the proportion we expect to shift due to unreliability, and the ratio will be 1.00. If there has been real change, the ratio will be greater than 1.00.

In an analogous manner, we computed gamma coefficients on the matrices of expected and actual changes. The differences between the expected and observed gammas can also be used to indicate the relationship between the real change and the expected change due to unreliability.

The expected and actual proportions changing and the ratios are shown in Table 5.3. We see that in all cases the proportion actu-

Table 5.3 Expected and Observed Change in Affect Scales between Waves

Sample	Per Cent of Cases Changing		Ratio Per Cent	Gamma		Base N
	Expected	Observed		Expected	Observed	
	Positive Affect Scale					
Detroit suburban sample:						
Waves I to II	38	61	1.61	.83	.39	409
Waves II to III	38	59	1.55	.83	.48	409
Waves III to IV	37	57	1.54	.83	.48	407
Total sample:						
Waves I to III	47	68	1.45	.83	.47	2,096
	Negative Affect Scale					
Detroit suburban sample:						
Waves I to II	45	59	1.31	.81	.58	410
Waves II to III	42	57	1.36	.81	.55	411
Waves III to IV	41	57	1.39	.81	.64	411
Total sample:						
Waves I to III	43	63	1.47	.81	.46	2,118

ally changing is substantially larger than we would expect simply based on our reliability estimates. The average ratio of observed to expected change is 1.54 for positive affect and 1.38 for negative affect, indicating that 33 to 50 per cent more people changed in reported affect than we would have expected on the basis of the simple reliability estimate.

The fact that there is considerable individual change between waves of interviewing is not surprising. Indeed, our belief that there would be change and our interest in the correlates of the change led us to design the study in the manner that we did. As was pointed out earlier, however, the fact that there is substantial individual change does not necessarily imply that there will be change at the group level. Asking questions about positive and negative feelings twice in a short period of time does have the effect of increasing the frequency of positive responses and decreasing the frequency of negative responses on the second interview. Thus, on the basis of our reliability estimates, we would expect a significant group-level effect and both an upward shift in the marginals for the Positive Affect Scale and a downward shift in the marginals for the Negative Affect Scale.

We can look at the group-level change by comparing across the four waves the average ridit values for the Positive and Negative Affect Scales based on the Wave I distributions. Significant shifts in the average values indicate that the distributions have changed in the direction of the mean change. In Table 5.4 we see that the average ridit values for the Positive Affect Scale increase somewhat between Wave I and Wave II and remain stable or decrease slightly from Waves II to III and III to IV. The Negative Affect

Table 5.4 Average Ridit Values for Affect Measures on Four Waves (Detroit Suburban Sample)

Scale	Wave			
	I	II	III	IV
Positive affect	.49 (400)	.52 (411)	.52 (410)	.50 (407)
Negative affect	.53 (410)	.48 (411)	.48 (411)	.48 (411)
Affect Balance Scale	.47 (409)	* .54 (409)	.53 (408)	.50 (408)

Scale mean values decrease between Waves I and II and remain stable over the next two waves. The net effect is a significant increase in the ABS scores between Waves I and II and a gradual shift downward through Waves III and IV.

We might interpret this change in psychological well-being as a slight seasonal effect. Interviewing for Wave I was conducted during the winter, for Wave II during the late spring and early summer, for Wave III during the autumn, and for Wave IV during the winter again. The rise in average ABS scores between winter and spring would be consistent with the popular belief that general well-being increases in the summer and declines in the winter, at least for the climate typical of the areas where most of the interviewing was done.

To summarize our findings on change in the affect measures, we have shown that many individuals do change their reported affect level over time and that this change is greater than we would expect on the basis of our reliability estimates. Considering the four waves spanning just over a year, there was a slight tendency for an increase in positive and a decrease in negative affect during the summer months, although the changes were of no great magnitude.

CHANGES IN AFFECT LEVEL AND IN AVOWED HAPPINESS

Investigation of the stability of affect measures is of minimal interest unless it can be related to our primary focus—a more detailed understanding of the correlates of self-reports of happiness. In Chapter 4, we showed that both positive and negative affect are related at one point in time to several questions in which we asked respondents to rate themselves on questions that, on the face of it, are indicative of avowed happiness. We would like to show that not only is there a correlation at one point in time, but also that the changes in the variables are correlated. This is a more powerful test of the relationship and one for which we now have the data.

There are several methods for showing correlated change in two variables. The one that we shall employ here is an adaptation of the ridit analysis described in Chapter 2 and is analogous to the type of analysis used in employing a t-test for differences between

correlated means.[4] We start with the fundamental property that although the individual scores in related samples, such as those of one sample measured at two points in time, are not statistically independent, differences between the pairs of scores are independent. Thus, instead of comparing the means of the distribution of scores on positive or negative affect for different groups, we can compare the distribution of difference scores between, for example, those who increased and those who decreased in their reported happiness.

Again our method is straightforward. For each individual, we subtract his Time 2 score on a particular measure, such as the Positive Affect Scale, from his Time 1 score on that measure. To this difference score, which might be positive, negative, or zero, we add a constant so that all of the difference scores will be positive in sign. In this manner we obtain a distribution of difference scores for our samples.

As in the case of our observed distribution of positive and negative affect and ABS scores, we can ridit the distribution of difference scores for our reference class, the respondents from the ten largest metropolitan areas. Using the ridit values for each difference score, we can compute the average ridit values for different subgroups and determine whether individuals in the subgroups were more or less likely than the reference group to change their scores on the variable in question.

The average ridit values for changes in self-reports of happiness and changes in positive and negative affect and ABS from Waves I to III are shown in Table 5.5. If we look along the main diagonals of the panels, we see that those who did not change their self-reports of happiness between the two time periods were about as likely to change their reports of positive and negative affect as was the reference group as a whole; that is, they have average ridit values about equal to the reference-class mean of .50. The one exception to this general stability of change scores among those who were consistent in their self-ratings of happiness occurs for those who were "not too happy" at both time periods. Among these respondents, there was a slight tendency for a decrease in

[4] I am indebted to Seymour Sudman for suggesting this strategy of analysis.

positive affect reports between the two time periods, although the difference between the average ridit values for this group and for those who were "very happy" or "pretty happy" at both time periods does not quite reach the level of statistical significance. Since "not too happy" is the bottom category of the self-ratings of happiness, people who were unhappy at both time periods may have been actually unhappier on Wave III, but we did not give them a chance to express this change in the overall ratings.

Looking at those who increased in reported happiness between the two time periods, as is seen in the cells below the major diagonals in those panels, we see that in all cases those who increased their avowed happiness were also more likely to increase their posi-

Table 5.5 Changes in Avowed Happiness and Changes in Affect Scales, Wave I to Wave III (Average Ridits for Change Scores)

Wave I Avowed Happiness	Wave III Avowed Happiness		
	Very Happy	Pretty Happy	Not Too Happy
	Positive Affect Change		
Very happy	.50 (406)	.44 (243)	[.30][a] (11) *
Pretty happy	.59 (215)	.49 (866)	.42 (95) *
Not too happy	.61 (20)	.61 (141) *	.42 (85) *
	Negative Affect Change		
Very happy	.49 (409)	.54 (246)	[.74] (11) *
Pretty happy	.47 (217)	.48 (879)	.63 (95) *
Not too happy	[.38] (19)	.40 (142) *	.51 (87) *
	Affect Balance Scale Change		
Very happy	.51 (402) *	.44 (237) *	[.19] (11) *
Pretty happy	.57 (213) *	.51 (857) *	.39 (94) *
Not too happy	[.66] (19) *	.60 (138) *	.44 (83) *

[a] Brackets indicate ridits based on less than twenty cases.

tive affect and ABS scores and to decrease their negative affect scores. In general, the greater the change in avowed happiness, the greater the likelihood of change in the various measures of affect, although these differences are not entirely consistent or of great magnitude.

Similarly, when we consider the cells above the main diagonals, we see that among those who decreased their avowed happiness between the two time periods, there is a greater likelihood of a decrease in their positive affect reports and an increase in their negative affect reports. Among those who changed in the direction of greater unhappiness, the changes are more marked and consistent than in the case of those who increased in their avowed happiness. At each level of change, there is a marked increase in the probability of changing one's affect level in the appropriate direction; and those who moved from the top to the bottom in avowed happiness were more likely to change in affect level than were those who moved only one step, either from "very happy" to "pretty happy" or from "pretty happy" to "not too happy."

The combination of increasing positive affect and decreasing negative affect and vice versa is clearest in the bottom panel of Table 5.5, which shows the probability of changes in ABS level and changes in avowed happiness. Here we see at each level of change a significant, or nearly significant, change in the probability of increasing ABS score between the two time periods. As an estimate of the probability that individuals coming from the two groups will differ in their ABS change scores, we can use the difference between average ridit values for subgroups, plus the mean. Thus, if two individuals are picked at random, one from the group that changed from "very happy" to "not too happy" and one from the group that changed from "not too happy" to "very happy," the probability is .97 that the one from the latter group will have a higher ABS change score, i.e., will have changed his ABS score more in a positive direction. While these two groups represent the extremes in observed change, the data clearly show that for other levels of change, changes in self-ratings of happiness are related to changes in positive and negative affect level.

The correlation in changes can also be shown in the data from all four waves. Here, since the number of respondents is much

smaller, we combine the different levels of change and consider only three groups—those who increased in their happiness ratings, those who remained the same, and those who decreased their happiness ratings. The data are shown in Table 5.6. We see that those who increased in their happiness self-ratings between each of the four waves are more likely to have high ABS change scores, i.e., were more likely to increase their ABS scores between the time periods, while those who reported becoming less happy between the time periods were less likely to increase their ABS scores. Those who remained the same in happiness ratings have a probability of change in ABS score that falls between the two other groups and is about the level expected for the groups as a whole. The ridit values used for the change scores are those computed for the ten metropolitan areas sample on changes from Waves I to III. The average values for this sample depart some from .50 because, as we noted, there was a slight rise in ABS level between Waves I and II and then a leveling-off and slight decline between Waves II and III and between Waves III and IV. The result of these changes in that the change for the Detroit suburban sample was somewhat less likely to be in an upward direction than was the change between Waves I and III for the ten metropolitan areas sample, yielding an average ridit value of less than .50 for the total Detroit suburban sample on the changes between Waves II and III and between Waves III and IV.

Table 5.6 Happiness Change and Affect Balance Scale Change (Average Ridits of Change Scores)

Self-Ratings of Happiness	Between Waves		
	I–II	II–III	III–IV
Increased	.69 (79) *	.58 (60) *	.66 (52) *
Remained the same	.52 (291) *	.46 (276)	.45 (292)
Decreased	.42 (59) *	.38 (71) *	.38 (63) *

SUMMARY

In this chapter we have discussed some possible sources of errors in our measurement of well-being and have described a method for determining the reliability of measures used in sample surveys. Data on changes in the affect measures over time indicate that the measures are stable enough over short periods of time (several days) to be useful in studying meaningful change over longer periods of time (several months). Changes in the affect measures were shown to vary with appropriate changes in avowed happiness.

In the remaining chapters, we shall investigate significant aspects of our respondents' lives in relation to variations in our affect measures. First, we shall look at the distribution of affect scores among various segments of society, particularly in relation to variables that are important in determining the standard of living and social position of families. Second, within the differing strata of society, we shall consider those individual experiences that appear to have the most significant relationships with variations in positive and negative affect. Next, we shall consider two major roles in adult life—marriage and work—and their relation to our affect measures. Finally, we shall investigate the way in which a major event that affected the lives of many individuals at more or less the same time produced changes in the general level of psychological well-being.

6

Social Status, Income, and Psychological Well-Being

In Chapter 3 we began our empirical inquiry into the meaning of psychological well-being by investigating some of the demographic correlates of avowed happiness. In Chapter 4 we developed measures for two dimensions of psychological well-being and showed their relation to measures of overall happiness. Chapter 5 was devoted to the question of the reliability of the measures that we developed. In this chapter we shall push our search for "construct validation" one step further by investigating the relationship between our new measures of psychological well-being and various indicators of social status.

Table 6.1 presents the distribution of scores for our three affect measures—the Positive and Negative Affect Scales and the Affect Balance Scale (ABS)—for the major demographic variables discussed in Chapter 3 with regard to self-reports of happiness. The distributions mainly follow the same patterns we saw earlier, although there are a few interesting differences between positive and negative affect that foreshadow some of the major findings to be reported later.

While there was no difference between men and women in avowed happiness, there is a slight tendency for women to be lower than men in ABS. Looking at the two affect dimensions separately, we see that this difference is entirely due to the fact that women are significantly higher in negative affect. Why women should have higher negative affect will become clearer in Chapter 7 when the meaning of negative affect is considered in greater

Table 6.1 Selected Demographic Characteristics, Positive and Negative Affect, and Affect Balance Scale, for Wave I (Average Ridits)[a]

Demographic Characteristic	Positive Affect	Negative Affect	Affect Balance Scale
Sex:			
Men	.45 (1,242)	.47 (1,251)	.49 (1,238)
Women	.47 (1,505)	.54 (1,513) *	.45 (1,497) *
Age:			
21–29	.55 (689)	.56 (696) *	.48 (694) *
30–39	.47 (829)	.51 (847)	.47 (843)
40–49	.41 (705)	.48 (722)	.45 (718)
50–59	.40 (506) *	.48 (515) *	.44 (514) *
Education:			
Eighth grade or less	.35 (588)	.52 (590)	.39 (575)
Part high school	.41 (724)	.51 (728)	.44 (710)
High school graduate	.49 (847)	.51 (852)	.50 (830)
Part college	.55 (328)	.52 (332)	.53 (327)
College graduate or more	.56 (291) *	.47 (293)	.57 (291) *
Income:			
Less than $2,000	.32 (154)	.56 (153)	.34 (152)
$2,000–$2,999	.40 (151)	.58 (153)	.37 (150)
$3,000–$3,999	.39 (174)	.54 (177)	.39 (172)
$4,000–$4,999	.38 (247)	.51 (249)	.43 (239)
$5,000–$5,999	.46 (381)	.52 (387)	.47 (374)
$6,000–$6,999	.45 (354)	.52 (355)	.47 (341)
$7,000–$7,999	.46 (278)	.53 (281)	.46 (276)
$8,000–$9,999	.50 (426)	.49 (425)	.52 (423)
$10,000–$14,999	.52 (418)	.46 (421)	.56 (417)
$15,000 or more	.57 (109) *	.46 (109) *	.59 (108) *

a Since the ridit values were calculated using the ten metropolitan areas sample as the identified reference distribution, it is possible for all the average ridit values in a particular column to be less than .50 when all samples are pooled.

detail. It will suffice here to indicate that this difference is apparently connected with a greater likelihood for women to report physical symptoms associated with anxiety. We might note, however, that women are also more likely than men to be high in positive affect, although the difference here is small and not significant. We might hypothesize a tendency for women to be more emotional, or at least to report more feeling states, both positive *and* negative, than men. Such a tendency could be one reason for the previously mentioned "expert" belief that women are less happy than men, even though there is no difference in self-reports of happiness.

The age category in Table 6.1 shows that there is little difference in ABS among age groups. Again, however, the positive and negative affect measures tell different stories. For the positive affect dimension, there is a steady decline in the probability of being high as one goes up the age scale. On the other hand, there is relatively little difference among the age groups in negative affect, although younger people are somewhat higher in negative affect. When the two measures are combined in the ABS, they tend to cancel one another out and to produce no differences, just as there were no differences in avowed happiness.

Education and income show ABS trends similar to those exhibited with self-reports of happiness: those who have had more education and who are better off financially are also more likely to enjoy a surplus of positive over negative affect. When we look at each of the two affect dimensions separately, however, the picture is somewhat more complicated and reveals that the relations of education and income to happiness may not be so simple as it appears on the surface. Educational level turns out to be associated with level of psychological well-being only through the avenue of positive affect. There is practically no difference between those at the bottom of the educational ladder and those at the top in the amount of negative affect reported, but there is a marked increase in the probability of those with higher levels of education to report many positive feelings. The reason for this difference is not entirely clear, although some tentative explanations will be advanced in Chapter 8.

Income, on the other hand, is related to both positive and negative affect, but the relationship is somewhat stronger for the former

than for the latter. While the differences in negative affect between adjacent income groups are approximately the same, the probability of reporting many positive feelings takes a relatively large jump between those who have incomes of less than $5,000 and those with incomes greater than $5,000, a pattern similar to that shown in the self-reports of overall happiness.

In sum, then, we find that our overall measure of psychological well-being, the Affect Balance Scale, shows a pattern of relationship to the major demographic variables similar to that exhibited by the self-reports of happiness. Such similarity is, of course, to be expected if the two measures are in fact indicative of the same construct. When we examine the two dimensions that make up the ABS, however, we see that they do not always move together. Instead, they manifest in other ways the independence we noted in Chapter 4. Further investigation of the separate correlates of these two dimensions will be deferred until Chapters 8 and 9.

Income appears to be the most important variable considered so far. To say that people with higher incomes are more likely to report that they are very happy or have experienced more pleasant feelings during the past few weeks may be true, but it is not particularly informative. Apart from the fact that it is less than useful from a prescriptive point of view, it is not very informative for two reasons. First, it is obvious that income is related to many other factors in life, such as having a good education, having a high-prestige occupation, and being free from worries about providing the necessities of life. Furthermore, income is not constant throughout an individual's life, and total earnings are somewhat related to his stage in the life cycle. A young man making $6,000 a year in his first job out of college is a different sort of person from a fifty-five-year-old man making $6,000 a year in a job that he has had for twenty years. Similarly, a single person with no dependents is in a different situation from a married man with six children in school, and we would expect that people in these different positions might well react differently to the same income. Thus, it is practically meaningless to talk about a relationship between income and psychological well-being without taking into consideration many of the variables that are obviously related both to the level of income a particular person has and to the meaning that income has for him.

The second reason knowledge of a simple relationship between income and happiness is not very informative is that it tells us very little about the manner in which income influences one's sense of psychological well-being. Except for a few miserly people such as King Midas, we would expect that few people get much positive satisfaction out of the simple possession of money. Instead, the money probably has its effect through what it enables an individual to do that he could not do if he did not have the money. Thus, income may give a person a sense of security or independence; it may ensure that his health needs are met; it may enable him to provide the kind of housing and standard of living that he would like for his family and children; it may be used to support or engage in artistic endeavors; or it may be used to indulge in what, to an outsider, are unnecessary luxuries. In spite of the noble ideal that "the best things in life are free," the fact remains that whatever one's desires, be they basic or frivolous, virtuous or vicious, money is a very helpful aid in attaining them. Whether the satisfaction of one set of desires rather than another is more conducive to human happiness is an empirical question to which the data in this study may provide a partial answer.

AGE, EDUCATION, INCOME, AND THE AFFECT BALANCE SCALE

We have noted that the demonstration of a simple relationship between income and psychological well-being is not very informative because income is related to education and age. Thus, what appear to be high correlations of psychological well-being with income could, in fact, be simply the result of an underlying correlation between education and psychological well-being that shows up because of the correlation between education and income. Similarly, young people in the early stages of their careers will generally have lower incomes than those who are established; but the expectations of later earnings may be discounted in the relationship between current family income and level of psychological well-being. When the two factors of age and education are taken simultaneously, we might expect some interaction effects because the potential earning power of the young college graduate is considerably different from that of the young high school graduate; and these long-run expectations may be extremely influential in deter-

mining the level of well-being. The data necessary to examine these interrelationships are presented in Table 6.2, which shows simultaneous relationships between age, education, income, and the ABS. Simpler tables, taking two variables at a time, could be constructed from this table.

If we were to look at the effects of education and income separately, we would see that each variable was related to ABS independently and with approximately the same degree of strength. Thus, if one did not take age into consideration, one would con-

Table 6.2 Income, Age, Education, and Affect Balance Scale, for Wave I (Average Ridits)

Age and Education	Income		
	Less than $5,000	$5,000– $7,999	$8,000 or More
Under 35:			
Less than high school graduate	.35 (147)	.42 (143)	.49 (62) *
High school graduate	.43 (84)	.48 (200)	.57 (146) *
Part college	.51 (56) *	.58 (115) *	.59 (131)
35–49:			
Less than high school graduate	.34 (124)	.43 (156)	.50 (95) *
High school graduate	.51 (25)	.42 (80) *	.58 (109)
Part college	[.48]ᵃ (12)	.48 (36)	.55 (114)
50 and over:			
Less than high school graduate	.35 (155) [*]	.47 (115)	.58 (64) *
High school graduate	[.50] (15)	.51 (34)	.52 (35)
Part college	— (6)	[.47] (13)	.50 (52)
N		2,324	
NA on income, education, or age		411	
NA on ABS		52	
Total N		2,787	

ᵃ Brackets indicate ridits based on less than twenty cases.

clude that education and income made about equal contributions to psychological well-being. When we look at the three variables simultaneously, however, we see that the education effect shows up only among younger people (under thirty-five) and that even here the effects of education are attenuated at higher income levels.

Income, on the other hand, appears to have some effect at all age levels for those who have less than a high school education, as well as for younger people who are high school graduates. Age does not have any independent effect after its correlation with education and income has been removed. We should note, however, that the present study excludes people over sixty years of age so that our entire sample consists of people who are in their adult working years. The pilot study (Bradburn and Caplovitz, 1965), which included the elderly, did show some independent negative effects of age on psychological well-being among persons over sixty-five.

While Table 6.2 does not demonstrate anything radically new or surprising, it does paint a clear picture of the world in which the perception of subjective well-being goes hand in hand with those elements of the social structure that are most important in determining a person's position in society. Thus, those who have achieved the socially valued characteristics of high income and education, or the young and well educated who have the potentiality for them, also have the added bonus of a psychological sense of well-being.

Such a view has important implications for our notions of the possible future of our society. On the positive side, data such as these should give pause to those modern-day Cassandras who see the increase in the average level of education and income in society as being associated with an increase in neuroses, tensions, and psychological miseries. As we noted in Chapter 3, whenever there have been systematic studies relating levels of education and income to any measure of mental health, the data have clearly shown that those who are fortunate enough to be successful in our society are also reaping psychological rewards.[1]

On the negative side, however, those who are, for whatever reason, denied the goods that are valued in society also are the ones

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[1] For a review of this literature, see Davis (1965).

who suffer the most psychologically. Thus, we are denied the comfortable view that the poor and the less educated somehow or other "get more out of life" than those who are successful in the world. While the poor may have their moments of gaiety and joy and the rich may have their moments of depression and unhappiness, it seems clear that the good things of life, both objective and subjective, tend to go together. There is no exchange of happiness for material success, nor is a serious psychological price paid by most people for being successful in the world.

We have been implicitly outlining a model of the relationship between a person's position in society and his level of psychological well-being. In applying this model to society, however, there are two facts that the reader should keep in mind. First, the correlation figures here are far from perfect, and there is considerable room for individual variation. Thus, we all know of individuals who are extremely successful and yet are wracked with psychological woes, and of individuals who have been plagued with misfortune and have few financial assets but manage to live happy lives. The existence of many such cases should not, however, detract from the proposition that, on the average, those who have the better of it in life also are better off psychologically. While it does not follow directly from this model, we also expect that as the standards of education and income rise in society, the average level of psychological well-being will increase rather than decrease.[2]

A second thing to keep in mind is that we have said nothing about the way in which income and education act to influence psychological well-being, or indeed whether there is anything more than an association among these three variables. In fact, some of the data presented later in this chapter suggest that income itself does not contribute directly to happiness but works through some, as yet unspecified, way in which it enables individuals to lead their lives.

One particular group in Table 6.2 worthy of special comment is those individuals from thirty-five through forty-nine who are high school graduates and make between $5,000 and $7,999 a year. As a group these individuals are less happy than we would expect on the basis of their educational and income level. In fact, it is the

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[2] For data on international comparisons, see Inkeles (1960).

one group that significantly deviates from the general additive model between education and income that fits the rest of the data. This is the age group that was most directly affected by World War II. The older men in this group would have been in the early stages of their careers at the beginning of the war, while the very youngest members would have been entering their careers at the time when many servicemen were returning from the war. The provisions of the GI Bill, which enabled many high school graduates to attend college who might otherwise not have done so, may have produced a significant impact on this age group. We might hypothesize that those who were high school graduates but either failed to take advantage of the GI Bill or were unable to do so because they did not have sufficient ability to do college work suffered a severe deprivation relative to their contemporaries who did go to college, and thus they failed to get ahead in the world to the extent that many of their contemporaries did. While our data are not sufficiently detailed to test this hypothesis definitively, the existence of this rather depressed group suggests that a significant change in social conditions, such as the sudden opening-up of educational opportunities to a group that would otherwise not have had them, may have some long-run negative psychological consequences, in addition to the undoubted advantages that result from a fairly sharp upgrading of the educational level of the population.

FINANCIAL RESPONSIBILITIES, INCOME, AND PSYCHOLOGICAL WELL–BEING

So far we have been considering the relationship between income and psychological well-being in the context of other variables that influence a person's general position in society. Such correlations, however, say nothing about the manner in which income affects psychological well-being. The most obvious way, of course, is that the possession of more money allows people a greater sense of security and decreases the amount of worry that they have about providing the basic necessities of life—food, housing, clothing, etc.

One test of this hypothetical manner by which income affects psychological well-being is to look at various indicators of financial responsibility and debt. We would expect that those who have

greater financial responsibilities, such as might result from having a large family or from being in debt, would be less happy than those at the same general level of income who have less demands. The first way to test this hypothesis is to look at the relationship between the number of children that a family has and psychological well-being within each income level. These data are presented in Table 6.3. Here we see that the number of children is significant only for those in the lowest income group, that is, a family income of less than $5,000 per year. For this group, the important difference is between those having two or fewer children and those having three or more children. For other income groups, the number of children under twenty-one apparently does not have any significant effect on the level of psychological well-being. We might thus conclude that unless the number of children in the family puts a serious drain on income, as in the case of low-income families with three or more children, differences in family responsibilities are not related to psychological well-being.

Another way of examining the relationship between income and psychological well-being is to look at the relationship between

Table 6.3 Income, Number of Children under Twenty-One, and Affect Balance Scale, for Wave I (Married Only, Average Ridits)

Number of Children under 21	Income			
	Less than $5,000	$5,000– $6,999	$7,000– $9,999	$10,000 or More
0–1	.41 (328)	.49 (279)	.50 (260)	.57 (241) *
2	.44 (104)	.46 (156)	.51 (178)	.57 (121) *
3	.33 (70)	.46 (112)	.48 (115)	.58 (82) *
4 or more	.32 (123) *	.46 (107)	.46 (104)	.53 (55) *

N	2,435
NA on children and income	83
NA on ABS	52
Total	2,570
Never married	217
Total N	2,787

debt and income. We would expect that for a given level of income, those who are heavily in debt will be less happy than those who are not seriously encumbered by debt. We can examine the relationship of debt to psychological well-being in several different ways. In our interviews, we first asked for a subjective estimate of debt—whether they had any debts at all. If they had debts, we then asked if they could pay off the debt easily or whether they could pay it off only if they borrowed money. On the third wave of interviewing, we also asked for specific estimates of debt level. Finally, we asked several questions about financial worries—whether, in fact, people were worried about their debts or about money.

The data show practically no relationship between subjective or objective debt and psychological well-being. In Table 6.4 we present the data for the subjective debt question from Wave III. We see that those with an income of less than $5,000 are lowest on the ABS, as we have seen consistently throughout this chapter. At this level of income, however, the amount of debt appears to have little relationship to overall happiness. In fact, so far as there is any relationship, those with no debts at all appear to be the least

Table 6.4 Income, Ability to Pay Off Debts, and Affect Balance Scale, for Wave III (Average Ridits)

Income Level (Wave III)	No Debts	Could Pay Off Debts	Could Not Pay Off Debts without Borrowing
Less than $5,000	.36 (104) *	.41 (71) *	.41 (241)
$5,000–$6,999	.52 (89)	.58 (129) *	.49 (282)
$7,000–$9,999	.57 (81)	.55 (213)	.51 (269)
$10,000 or more	.58 (94) *	.58 (261) *	.57 (168) *

N		2,002
NA on income or debt		107
NA on ABS		54
Total N		2,163

happy. This result is probably because those with the lowest income, particularly those who are on welfare, are included in this group. The only place where the amount of debt appears to make any great difference is in the $5,000–$6,999 income group, where those who could not pay off their debts without borrowing money are significantly lower on the ABS score than those who could pay off their debts. At higher levels of income, debt level is not significantly related to the ABS score.

We might note that debt level, however, does tend to reduce the income effect somewhat. For all debt levels, the highest income group is significantly higher than the lowest income group on the ABS score, but the difference occurs between the income group with less than $5,000 and the $5,000–$6,999 group. Only for those who are heavily in debt does income have a continuous effect, and here it seems to go in a step-wise progression with a rather sharp break around the $5,000 level and another break at the $10,000 level. If we used as our indicator of debt level the actual dollar debt reported instead of the subjective report of debt, the results would be the same.

We would conclude, then, that debt level itself has relatively little effect on happiness apart from the fact that people of lower income are more likely to have debts that they cannot pay off without borrowing. Examination of debt level, however, does tend to show that variation in income is more closely related to variation in the ABS score for those who are heavily in debt than it is for those who are not in debt to any great extent.

Since debt level is not directly related to psychological well-being, we should not be surprised to find that changes in debt level between our two interviews are not strongly related to changes in the ABS scores. Table 6.5 presents the relationship between changes in the subjective debt level between the first and third interviews and changes in the ABS score. The values in the table are the average ridit values for the ABS change score. A high value here indicates that, on the average, individuals in a category were more likely to increase their ABS scores than the reference population, while a lower value means that they were less likely to increase their ABS scores. We would expect that those who decrease their debt would be more likely to have high ABS change

scores, while those who remained at the same debt level or increased their debt would have lower ABS change scores. There is a tendency for this to be true, but the difference in ABS change between those who decreased and those who increased their debt level between the two interviews is small.

While the debt level itself has relatively little effect on ABS scores, we do find a significant association between worry about debt and the ABS score. Table 6.6 shows that at all levels of

Table 6.5 Change in Subjective Debt Level and Affect Balance Scale, Wave I to Wave III (Average Ridits of Affect Balance Scale Change Score)

Debt Level between Waves I and III	Average Ridit
Decreased	.52 (427)
Remained the same	.50 (1,367)
Increased	.48 (287)
N	2,081
NA	82
Total N	2,163

Table 6.6 Income, Worry about Debts, and Affect Balance Scale, for Wave I (Average Ridits)

Income	Worry about Debts	
	No	Yes
Less than $5,000	.44 (371)	.34 (342) *
$5,000–$6,999	.51 (450)	.41 (263) *
$7,000–$9,999	.52 (502)	.44 (197) *
$10,000 or more	.57 (431) *	.53 (94) *
N		2,650
NA on income and debt		85
NA on ABS		52
Total N		2,787

income except $10,000 or more a year, those who report having worried about debts during the past few weeks are more likely to have low ABS scores than are those who have not worried about debts. We might also note that while those with lower incomes are more likely to report worrying about debts, and, as we saw earlier, are more likely to have significant debts, worry about debts does not destroy the relationship between ABS and income. Those with higher incomes are more likely to have high ABS scores no matter whether they worry about debts or not. Indeed, this table is not terribly informative; it simply points up the fact, which we shall see in a later chapter, that people who are less happy are more likely to worry about all sorts of things, including, but not exclusively, money and debts. Thus, the worry over debt may be simply another manifestation of a general unhappiness or high level of worry.

CHANGES IN INCOME AND PSYCHOLOGICAL WELL–BEING

If income were a fairly significant determinant of psychological well-being, we would expect that changes in income level between our two interviews would be associated with a change in ABS level. During our first interview, we asked respondents what their total family income had been during the previous year, that is, 1962; and in the fall interview, we asked them what they expected their total income to be for the current year, that is, 1963. While the year was not yet completed, we felt that most families had sufficiently steady incomes to be able to estimate at this time what their total family income would be for the year. Rather surprisingly, we see in Table 6.7 that there is no relationship between changes in the ABS score and expected changes in income. Those who expected less income in 1963 than in 1962 were about as likely to increase their ABS scores from the first to the third interview as were those who expected a greater income during 1963.

It is possible here that our income categories are so gross that they failed to pick up significant changes. A more likely explanation, however, is that changes in income are not particularly noticed except at the times when they are first announced, such as the times when a person finds he is getting a pay raise, or when it appears that he will be unemployed for a long period of time or in

some other way learns he will lose a significant part of his income. Since this table was constructed by taking the reported incomes of the two years and comparing them, the salience of income change may have been very low at that particular time. As we see in Table 6.8, those who reported that the chief wage earner (CWE) in the

Table 6.7 Change in Income and Affect Balance Scale, Wave I to Wave III (Average Ridits for Affect Balance Scale Change Scores)

1962 Income Level	1963 Expected Income Compared with 1962 Income		
	Less	Same	Greater
Less than $5,000	.50 (68)	.50 (152)	.49 (249)
$5,000–$7,999	.51 (135)	.56 (242)	.51 (345)
$8,000 or more	.46 (162)	.50 (414)	.50 (165)
Total (all income groups combined)	.49 (365)	.52 (808)	.50 (759)

N	1,932
NA on income change	152
NA on ABS	79
Total N	2,163

Table 6.8 Change in Pay of Chief Wage Earner (CWE) and Affect Balance Scale, for Wave I (Average Ridits)

Item	Change in Pay	
	Pay Raise during Past Year	Pay Cut during Past Year[a]
Yes	.48 (1,724) *	.39 (95)
No	.43 (651)	.43 (443)

N	2,375	N		538
NA on ABS	52	Not applicable		1,768
NA on pay increase	44	NA on ABS		52
Unemployed or no CWE	316	NA on pay increase		113
Total N	2,787	Unemployed or no CWE		316
		Total N		2,787

[a] Asked only of those who did not receive pay roise.

family received a raise in pay during the past year (1962) were significantly more likely to have high ABS scores than were those who did not receive a pay increase, but those who got a pay cut were only slightly more likely to have low ABS scores. All in all, however, the relationships are not very strong.

SUMMARY

How are we to interpret the total picture of relationships between income and psychological well-being? From the data presented in this chapter, it appears that severe income deprivation does have a strong relationship to happiness. Those who have considerably below-average incomes, and particularly those who combine low incomes with heavy family responsibilities, are likely to have a low sense of well-being. Beyond a certain income level, which empirically appears to be about $5,000 a year, the effect of further increment in income is moderate, although at most levels it continues to appear. The data so far have been unable to answer the question of whether the important variable at the higher income levels is the income itself, in the sense that it enables greater discretion over the kinds of goods and services that one purchases, whether it is a certain position in society and the way in which one is treated by other people, or whether it is the symbolic effect of income that allows a person to judge his worth in society. In the remaining chapters, we shall attempt to investigate in more detail the correlates of positive and negative affect that make up our measure of psychological well-being, with the hope that at the conclusion we shall be able to give a fuller answer to this question.

7

Anxiety, Health, and Negative Affect

INTRODUCTION

The principal argument of this book has been that a study of what is usually called "mental health" can best be pursued by altering our conceptual framework and taking as the major dependent variable the concept of psychological well-being. Psychological well-being is viewed as consisting of two independent dimensions of positive and negative affect. The analysis presented so far has been designed to show the operations by which such dimensions can be measured, how these measures behave over time, and their distribution through the social structure. If such an approach is to make a meaningful contribution to the literature on mental health, it is necessary to show the relationship between the measures that we have developed and some of the more traditional ones that have been employed to measure mental health. In this chapter we shall demonstrate that several measures used by other investigators are related to our dimension of negative affect but have little or no relationship to our dimension of positive affect.

INDICATORS OF POOR MENTAL HEALTH

In his review of the empirical literature concerned with evaluating mental health in large, heterogeneous, noninstitutionalized populations, Davis (1965) shows that a common set of variables runs through most of these studies. While particular studies differ in their methods of examining these variables, the areas of inquiry can be grouped into four general categories: (1) questions concerning self-evaluation of mood and life satisfactions; (2) questions concerning principal worries; (3) questions concerning bodily

symptoms, such as headaches, general aches and pains, rapid heart beat, etc., which have played a prominent role in psychiatric conceptions of the somatic symptoms of psychological difficulties; and (4) measures of "psychological anxiety" that deal with expressed nervousness, tenseness, inability to sleep, and general lassitude. In our own interview schedule we attempted to cover all of these areas so that we would be able to relate the findings of our study to some of the other principal studies that have used survey methods to investigate mental health in the noninstitutionalized population.

The first area of concern, of course, is covered in our questions on avowed happiness and life satisfactions, as well as in the battery of questions dealing with the particular feeling states that comprise our positive and negative affect battery. Indeed, the elaboration of this approach to the study of mental health forms our principal focus of interest.

Our study taps the second area of concern in two ways. The first is a list of areas about which people might be worried that was adapted from one used by Srole *et al.* (1962) in their study of mental health in midtown Manhattan. Respondents were asked whether they had worried about any of ten topics during the past few weeks. (For the list, see Appendix 3, Wave I Q. H5.) The intercorrelation of responses indicated a high degree of association among worries in different areas, with the exception of worry about children, which had little or no relationship to other worries. We therefore constructed a worry index by summing the number of reported worries for all items except worry about children.

In addition to the worry index, which might be seen as covering the extensity of worries—that is, the number of different areas about which a person reports having worried during the past few weeks—the second way we approached worry was by a question tapping the intensity of worry. This question, which was also used by Gurin *et al.* (1960), asked respondents if they worried "a lot" or "not very much" about the things they had mentioned were worries to them.

The third category of concern, physical symptoms, was measured by presenting the respondent with a list of possible symptoms and asking him to report which ones he had experienced during the past few weeks. The list was similar to one that has been used in many

mental health studies from *The American Soldier* (Stouffer *et al.,* 1950) on. A symptom index was formed by summing responses to the following items: "general aches and pains," "headaches," "dizziness," "rapid heart beat," and "hands sweat and feel damp and clammy" (Appendix 3, Wave I Q. H19).

Psychological anxiety was measured by an index constructed from the responses to three items: "nervousness or tenseness" during the last few weeks, "trouble getting to sleep at night," and "have enough energy to do the things that you would like to do" (Appendix 3, Wave I Q. H19g, H26, and H29). While responses to these items are correlated with the physical symptom items, it was felt that they reflected a more diffuse psychic state nearer to the commonsense notions of anxiety than might be the case for physical symptoms, which could stem from physical illness as well as from psychological disturbances.

We asked another question, comparable to one used in *Americans View Their Mental Health* (Gurin *et al.,* 1960), to obtain a general indication of whether or not the respondent himself felt that he had had serious psychological problems in his life. This question asked the respondent if he had ever felt that he was going to have a nervous breakdown, and if so, whether he had felt that way more than once (Appendix 3, Wave I Q. H30). Approximately two-thirds of those who replied "yes" to the first part of the question also said "yes" to the second part. We thus combined the responses of both parts into a simple dichotomy of "yes" or "no." Since this item asked the respondent whether he had felt that he was going to have a nervous breakdown at any time during his life, we interpret it as a more general indicator of long-term psychological troubles, even though they may not be operative at the moment. On the other hand, the psychological anxiety index and the other indices, which focus on the feelings of the respondent during the past few weeks, are interpreted as a measure of current feelings of disturbance that may or may not be of short duration.

We thus have five measures of variables that have been prominently identified as indicators of poor mental health. Two of these measures—the worry intensity and nervous breakdown questions —are not specifically time-focused items, but rather are asked either in terms of "Do you feel this way in general?" or "Have you

felt this way at any time in your life?" The other three measures are concerned with specific feelings of worry, anxiety, or physical symptoms experienced during the past few weeks.

When we look at the interrelationships among these five measures, we see that they have a high degree of association. Table 7.1 shows the coefficients of association between each pair of measures, separately for men and women. The structure of the coefficients appears to be similar for both men and women and suggests that although there is certainly not perfect association among the different variables, they are clearly tapping a similar dimension of psychological distress. Even though the time focus of the questions varies for many of the items, focusing attention on experiences during the recent past rather than on long-term dispositions, we find a pattern of relationships among these mental health indicators similar to that which has been found by other investigators working with generally similar methodology.

RELATION OF MENTAL HEALTH INDICATORS TO AFFECT MEASURES

If we interpret our five measures as indicative of what traditionally has been conceptualized as a mental health dimension, we can then proceed to ask: What is the relationship between our two dimensions of positive and negative affect and this mental health dimension? In our pilot study, we used measures similar to the

Table 7.1 Coefficients of Association among Selected Indicators of Psychological Distress, by Sex, for Wave I[a] (Gammas)

Indicator	Worry Index	Worry Intensity	Nervous Breakdown	Anxiety Index	Physical Symptoms
Worry index		.52	.39	.34	.30
Worry intensity	.49		.39	.48	.26
Nervous breakdown	.41	.50		.50	.42
Anxiety index	.32	.50	.45		.46
Physical symptoms	.37	.41	.39	.53	

[a] Gammas for men (N = 1,250) are above the diagonal; gammas for women (N = 1,528) are below the diagonal.

worry and anxiety symptom measures employed here, and we concluded that these measures were related only to negative affect. We are not surprised then to find in Table 7.2 that each of these five indicators shows a strong positive association with negative affect and essentially a zero relationship with positive affect. Indeed, the level of association between negative affect and the various indicators of poor mental health is of about the same magnitude as that between each of the indicators, suggesting that in fact all of these items are simply different means of tapping the same underlying dimension.

In order to establish this relationship more fully, we can look not only at these cross-sectional relationships as presented in Table 7.2, but also at the association between change in negative affect and change in several of the indicators of deficient mental health. Here, of course, we are primarily concerned with the indicators that have a specific time focus on the recent past because these are the ones that we would expect to change over time. We have selected the

Table 7.2 Coefficients of Association between Selected Indicators of Psychological Distress and Positive and Negative Affect, by Sex, for Waves I and III (Gammas)

Indicator	Men		Women	
	Wave I	Wave III	Wave I	Wave III
	Positive Affect			
Worry index	.00	.05	−.03	−.02
Worry intensity	.05	−.07	−.08	−.13
Nervous breakdown[a]	.04	−.05	.00	−.06
Anxiety index	.04	.02	.00	−.04
Physical symptoms	.00	.03	−.02	−.01
	Negative Affect			
Worry index	.40	.42	.41	.44
Worry intensity	.43	.53	.42	.52
Nervous breakdown[a]	.48	.50	.47	.35
Anxiety index	.47	.48	.45	.51
Physical symptoms	.30	.29	.36	.34
N	1,259	943	1,528	1,220

[a] Most respondents answered the nervous breakdown question only on Wave I. The gamma indicates the association with their affect responses on Wave I or Wave III as shown.

two indicators that have the highest level of association with nega-
tive affect—the worry index and the anxiety index—and show in
Table 7.3 the probability of change in negative affect associated
with each level of change in these two indices. Because the pattern
of relationships is essentially the same for men and women, we
have treated the sample as a whole rather than breaking it down by
sex. We should, however, keep in mind that women tend to be
higher than men in their general level of reported negative affect,
as we saw in Chapter 6. As implied by these relationships, women
are also higher in the various other indicators of poor mental
health reported here.

We see that for both indices there is a considerable association
between changes in the mental health indicator and changes in
negative affect. Those who increased in the worry and anxiety
indices from Wave I to Wave III were more likely to increase in
their negative affect, while those who decreased in worry or anxiety

Table 7.3 Changes in Selected Indicators of Psychological Distress
and Changes in Negative Affect, Wave I to Wave III (Average Ridits
for Change Scores)

Wave I Index Level	Wave III Index Level		
	Low	Medium	High
	Worry Index		
Low	.49 (307)	.53 (306)	.58 (71)
Medium	.44 (164)	.49 (385)	.56 (277) *
High	.34 (57) *	.40 (185) *	.49 (366) *
	Anxiety Index		
Low	.51 (454)	.58 (190)	.64 (77) *
Medium	.42 (239)	.50 (329)	.58 (186) *
High	.33 (114) *	.40 (254) *	.51 (275) *

N	2,118
NA	45
Total	2,163

were less likely to increase in negative affect. The association of the changes is somewhat stronger for the anxiety index than for the worry index. The odds are about four to one that someone who went from high to low anxiety would have a greater degree of negative affect change than those who went from low to high. The odds for similar changes in the worry index are about three to one.

It is interesting to speculate why the various indicators of deficient mental health that have been used by other researchers should be slanted toward the negative side of well-being. At this time there can be no definitive answer to this question, but two possibilities seem most plausible. The first derives from the experiences of those most concerned with mental health. Research work in the area of mental health comes primarily from a psychiatric tradition and has been heavily influenced by the clinical experiences of psychiatrists and clinical psychologists, who have had most of their experience with people suffering from severe mental illnesses. Interest in mental health has grown as an extension from the practical problems of those who have had to treat the mentally ill. Thus, the types of conceptions employed have been derived from experiences with the symptoms of mental illness. When this framework is transferred into a research setting and instruments are designed for measuring mental health, there is an understandable bias toward asking about factors that are associated with symptoms of mental illness. For the types of measures that have been frequently used in studies of mental health among noninstitutionalized populations, it is clear that phrasing questions in terms of the presence or absence of symptoms of mental illness leads to a negative tone. Indeed, some psychiatrists, for example, Dr. W. E. Barton in his chapter in Jahoda's *Current Concepts of Positive Mental Health* (1958), note that the psychiatrist can define mental health only as the absence of certain indicators of mental illness.

From a research point of view, the assumption underlying the use of symptom batteries, lists of worries, or other such items is that the scores they yield place people along a dimension from good to poor mental health. The burden of the argument and data that we have been presenting in this book, of course, suggests that this is only half the story. A person's score on this dimension, in and of itself, would not be adequate to measure his mental health, or, as

we would prefer to conceptualize it, his sense of psychological well-being. For a fully adequate description, we would need to know a person's positive affect score as well as his negative affect score, since the two apparently can act to compensate for one another.

A second reason for the apparent preponderance of questions concerning items associated with mental illness is a simple linguistic one. It is easier to ask people what is wrong with their lives than it is to ask them what is right with their lives. The richness of the English vocabulary enables us to make almost exquisitely fine gradations of misery and to proliferate questions dealing with life's problems. However, when it comes to asking for the good things that happen to people and differentiating among the joys in life, we run into a serious vocabulary gap that makes it difficult to find adequate measures for tapping this dimension. Why this difference in vocabulary should exist is far from clear, although it probably has something to do with our puritanical heritage, which puts little stress on the joys of life and gives considerable attention to its miseries. An interesting demonstration of this trend was given by Rogers (1960), who showed that as people talk about themselves, they tend to become increasingly self-critical. The tendency toward greater self-depreciation could be intensified by reinforcing such statements, but could be slowed down only by selective reinforcement of positive self-references. Apparently the more we talk about ourselves, the worse we make ourselves appear.[1]

LONG–TERM AND SHORT–TERM PSYCHIC DISTRESS

Our measure of negative affect and three of the five measures of mental health are concerned with how respondents felt during the few weeks prior to the interview. This emphasis on recent experiences follows from our view of psychological well-being as a concept related primarily to current functioning rather than to long-term dispositions. Such concerns, however, do not imply that there are not important individual differences extending over long periods of time in the way individuals adjust to their environment.

[1] Concern for such a trend led us to design an experiment to ascertain the effect of the ordering of the affect and happiness measures in the interview schedule. No order effects were found, however. (See Bradburn and Mason. 1964.)

Thus, conceptually, we can make a distinction between long-term dispositions toward mental health or illness and an individual's current feelings of happiness or well-being.

The implications of such a distinction are important for an adequate understanding of mental health. In discussing some criticisms of the traditional concepts of mental health, we noted in Chapter 1 that implicit in these concepts were considerations of the appropriateness of behavior in situations productive of negative affective tone. Indeed, criticisms of happiness as an indicator of mental health have pointed out that in some types of situations it is inappropriate to feel happy, and if one should feel happy in such situations, it might be a sign of mental illness. Since the definition of the "appropriateness" of responses is largely a function of judgments by other members of the culture, there will be difficulty in gaining consensus about the types of behavior that are "really" indicative of mental illness.

While the distinction between long-term mental problems and current feelings of psychological well-being is relatively clear conceptually, it is a difficult distinction to make in empirical research. The difficulty arises partially from the fact that we do not really have data from a long enough time period to make adequate assessments of the long-term difficulties individuals are having, even though we are dealing with a panel study and have several measures on the same respondent for over a year. Also, we have to rely entirely on self-report data and are unable to make independent assessments of either the problems in the respondent's environment or the degree to which others might view his behavior as appropriate to the environmental stresses he experiences.

With these limitations in mind, however, we can take responses to the question "Have you ever felt that you were going to have a nervous breakdown?" as a fairly crude indicator of long-term mental health problems. Responses to this question will undoubtedly pick up a number of people who have had serious problems in the past but do not have them now and will undoubtedly miss a few individuals who define their problems in terms other than nervous breakdown or who are too defensive to admit such serious problems. Yet we feel that responses to this question will distinguish a large number of those in our sample whom psychiatric raters would

judge to have serious emotional problems commonly identified as poor mental health.

What kinds of differences can we expect between those who have more serious long-term problems and those who are suffering from transitory problems that lead them to have relatively high negative affect? One of the principal consequences of having more serious long-term emotional problems is a high degree of felt distress. Thus, we would expect that those who have felt they were going to have a nervous breakdown should express a greater degree of negative affect and that this high degree should be maintained across our different waves of interviewing. We know from Table 7.2 that those who report having felt as if they were going to have a nervous breakdown are more likely to be high on negative affect at both Wave I and Wave III than are those who do not so report. In addition, we would expect that those who have long-term emotional problems would be less likely than those with transitory problems to decrease their negative affect between waves of interviewing, or if they have less than the maximum, would be more likely to increase between the two interviews.

In order to test this hypothesis, we can look at the turnover tables for negative affect scores separately for those who said that they had at some time in the past felt as if they were going to have a nervous breakdown and those who did not so indicate. The number of people in the Detroit suburban sample who reported that they had felt like having a nervous breakdown is not large enough to make meaningful comparisons for all four waves. When we compare Waves I and III, we see in Table 7.4 that indeed those whom we classify as having more serious emotional problems are more likely to increase in negative affect between the two waves if they had low or medium negative affect at Wave I, and also are more likely to maintain a high level of negative affect if they initially were high. We would interpret this difference as indicating that one of the consequences of a more severe or long-term mental problem is that there is a relatively high degree of negative affect experienced over a considerable period of time.

A second difference we would expect between those who have serious long-term problems and those who are suffering from transitory feelings of worry or distress lies in the relationship between

negative affect and some of the other time-focused indicators of problems, such as the worry and anxiety indices. There should be a more generalized negative affect among those who have the more serious problems than among those who do not have any long-term problems. Thus, for instance, among those who have few worries, the people who report never having felt as if they were going to have a nervous breakdown should be significantly lower in negative affect than those who report that they have felt like having a nervous breakdown. Among those who report many worries, the difference between these two groups should be much smaller, if not disappear entirely. Similar differences should obtain for people who report low and high anxiety.

We are hypothesizing that for those who have not felt as if they were going to have a nervous breakdown, i.e., those who are having only temporary difficulties, the degree of negative affect reported will be a function of the amount of worry and anxiety they have felt during the recent past. Presumably, although we do not have the data here to test it, these worries and anxieties are a function of particular stresses or situations that these people are experiencing at the time. On the other hand, those who have felt they were going to have a nervous breakdown, i.e., those with long-term problems, are, as we have indicated above, more likely to be operating at a generally high level of negative affect and will be less likely to report differences in worry or anxiety level. Table 7.5 gives the data

Table 7.4 Nervous Breakdown and Changes in Negative Affect, Wave I to Wave III (Per Cent)

Felt As If Going To Have Nervous Breakdown	Wave I Negative Affect	Wave III Negative Affect			Total	
		Low	Medium	High	Per Cent	NA
Yes	Low	47	37	16	100	64
	Medium	15	42	43	100	161
	High	12	37	51	100	236
No	Low	64	26	10	100	654
	Medium	37	44	19	100	572
	High	22	40	38	100	399

that test these hypotheses. We see that for both the worry and anxiety indices our hypothesis is not confirmed: there are large differences in the probability of having high negative affect as one moves up these indices, both for those who have felt that they were going to have a nervous breakdown and those who have not.

Thus, while we can distinguish conceptually between those who experience longer term, more serious disturbances and those who have a passing experience of lowered psychological well-being, our measures do not enable us to demonstrate the difference as clearly as we might like. We feel, however, that further research should keep this distinction clearly in mind and should strive to find better ways of distinguishing the two types of problems operationally.

PHYSICAL ILLNESS AND NEGATIVE AFFECT

Several of the measures that we have been using as indicators of mental health, particularly the physical symptom and anxiety

Table 7.5 Nervous Breakdown, Worry, Anxiety, and Negative Affect, for Waves I and III (Average Ridits)

Wave	Felt As If Going To Have Nervous Breakdown	Index Level		
		Low	Medium	High
		Worry Index		
I	Yes	$.55_{(101)}$	$.62_{(198)}$	$.75_{(254)}$ *
	No	$.38_{(673)}$	$.47_{(735)}$	$.60_{(455)}$ *
III	Yes	$.51_{(153)}$	$.63_{(164)}$	$.74_{(155)}$ *
	No	$.40_{(837)}$	$.49_{(514)}$	$.63_{(256)}$ *
		Anxiety Index		
I	Yes	$.56_{(73)}$	$.62_{(200)}$	$.73_{(283)}$ *
	No	$.36_{(767)}$	$.49_{(635)}$	$.62_{(457)}$ *
III	Yes	$.45_{(87)}$	$.60_{(186)}$	$.73_{(203)}$ *
	No	$.37_{(711)}$	$.51_{(572)}$	$.62_{(324)}$ *

indices, may also reflect actual physical illness. While there may be an intimate connection between many types of physical illness and psychological causes, as well as psychological consequences of physical illness, it seems obvious that a large part of the illness experienced by the population stems from physical rather than psychological causes. In addition, both our study and repeated national surveys have found that health is one of the primary sources of worry. The negative effects of illness are so obvious that we would be surprised if we did not find an association between illness and experiences of negative affect.

Our interview schedule contained several questions about the respondent's physical health. One question asked whether the respondent had been sick during the past few weeks, and if he had, whether it caused him to cut down on his usual activities (Appendix 3, Wave I Q. H16). In addition to reports of recent illnesses, we also asked respondents whether they had any long-standing illnesses and whether these caused them to restrict their activities (Appendix 3, Wave I Q. H17). Both of these items had moderate association with negative affect and nearly zero association with positive affect. For recent illnesses, the gammas were $+ .13$ with negative affect and $- .04$ with positive affect. For long-term illnesses, the gammas were $+ .19$ with negative affect and $- .05$ with positive affect.

In order to investigate the relationship between physical illness, physical symptoms, anxiety, and negative affect, we constructed an illness index by combining the responses to the questions on recent illness and on long-term ailments. We then combined the index scores to give a scale with three points: "low" included those who were neither sick recently nor had long-term ailments; "medium," those who were sick recently but did not cut down on their activities and those who were not sick recently but had long-term ailments that did not cause them to restrict their activities; and "high," those who were sick recently and had to cut down their activities, plus those who had long-term ailments requiring them to restrict their activities.

We might note first that both being sick recently and having long-term ailments have strong relationships with the physical and psychological symptoms of anxiety. For being sick recently, the

gammas are .45 with the anxiety index and .54 with the physical symptom index; for long-term illness, the gammas are .34 with the anxiety and .46 with the symptom index.

Looking now at the relationship between physical illness, anxiety, and negative affect in the first part of Table 7.6, we note that among those who are low in anxiety, there is a positive relationship between being high on the illness index and being high in negative affect, while among those who were high in anxiety, no such relationship exists. It looks as if we have a situation here similar to the one we hypothesized but did not confirm above regarding feelings of having a nervous breakdown. Those who are high in anxiety appear to have a high degree of negative feelings, regardless of their physical health situation. At every level of health, anxiety is still related to negative affect, although the difference is greater among those who are healthy than among those who are sick.

A similar pattern is seen in the second part of Table 7.6 with regard to the relationship between physical symptoms and negative affect, controlling for the level of physical health. Again we see that illness is associated with negative affect among those who have low

Table 7.6 Physical Illness, Anxiety, Physical Symptoms, and Negative Affect, by Sex, for Wave I (Average Ridits)

Illness Index	Men		Women	
	Index Level		Index Level	
	Low	High	Low	High
	Anxiety Index			
Low	.41 (527)	.68 (84)	.45 (496) *	.67 (159)
Medium	.46 (261)	.60 (90)	.47 (264) *	.66 (244)
High	.55 (51) *	.62 (40)	.56 (50) *	.69 (113)
	Physical Symptom Index			
Low	.42 (474) *	.54 (145)	.45 (441) *	.62 (211)
Medium	.46 (196)	.54 (150)	.47 (195) *	.62 (309)
High	.54 (28)	.59 (61)	.62 (21) *	.66 (140)

symptoms, the difference being larger for women than for men. There is no relationship between illness and negative affect among those who have high symptoms. Among those who are healthy, there is a positive association between symptoms and negative affect, again larger for women than for men. However, among those who are sick, there is practically no relationship between symptoms and negative affect.

It appears, then, that the relationship of anxiety and physical symptoms to negative affect is not explained by the fact that people who are sick are more likely to have anxiety and physical symptoms. Although the sick are indeed more likely to have symptoms and are more likely to be high on the anxiety index, the relationship that anxiety and physical symptoms have to negative affect is actually stronger among the healthy. Among those who are low in symptoms or anxiety, there is a relationship between illness and negative affect. If a respondent is high in anxiety, however, it does not make any difference whether he is sick or not; he is more likely to have high negative affect. If he has high physical symptoms *and* is sick, he is only slightly more likely to have high negative affect than if he has many symptoms and is not sick.

We should note here a partial explanation for the higher negative affect reported by women that was indicated in Chapter 6. From the number of cases in the cells of Table 7.6, we see that women are more likely to be high on the physical symptom index—50 per cent of the women as compared with 38 per cent of the men are high on that index. Among those low in physical symptoms, the differences in negative affect between men and women practically disappear. Among those high on the symptom index, women continue to be somewhat higher in negative affect.

Overall, then, we would conclude that physical illness does have a small association with negative affect, but it is more important that one reports having high physical symptoms or high anxiety, regardless of whether or not he is sick.

SUMMARY AND CONCLUSION

In this chapter, we have explored the relationship between our affect measures and some traditional indicators of poor mental health. We noted that these measures are associated only with nega-

tive affect and show no relationship to positive affect. Not only does the association between the mental health measures and negative affect exist on a cross-sectional basis, but also changes in the indices are associated with changes in negative affect. Further analysis, which attempted to make a distinction between long-term emotional disturbances and short-term problems, indicated that the long-term disturbances are associated with a high and fairly stable level of negative affect, but that those with little indication of long-term psychological disorders do not show the hypothesized greater covariance among measures such as anxiety, worry, and negative affect. Finally, while physical illness is also related to the presence of symptoms and psychological anxiety, it was noted that physical illness does not explain the relationship. Anxiety and physical symptoms are related to reports of negative affect regardless of whether the respondent was ill or not. Among those respondents who showed low symptoms or low anxiety, there is, however, a relationship between physical illness and the presence of negative affect.

By pointing to the critical role of negative affect in the traditional indicators of poor mental health, the data reported here focus the attention of researchers on determinants of this variable. In particular, we might ask to what extent variations in negative affect reflect changes in environmental conditions and to what extent they reflect differential sensitivities to experiences that are potentially productive of negative affect. In the previous chapter, we pointed out that some of the gross indicators of environmental differences, such as those reflecting socioeconomic status, have a relatively smaller association with negative than with positive affect. A table not presented here shows that while questions pertaining to mental health, such as nervous breakdown, worry, and anxiety, have a negative correlation with socioeconomic status, the level of association tends to be small (around $-.10$). Differences only appear sharply between the really deprived groups, i.e., those with incomes of less than \$3,000, and all others. Thus, it appears that social-structure factors may not be as important for negative affect as they are for overall well-being.

On the other hand, the fact that women have higher levels of negative affect, nervous breakdown, worry, etc., suggests that there

may be a strong responsiveness factor accounting for a good part of the variance in negative affect and related measures. It is commonly supposed that socialization patterns in our culture are more tolerant of emotional expressiveness in girls than in boys. If learning tighter emotional control is part of learning the male sex role, we would expect adult men to be less responsive to our interview items dealing with affect and probably less emotionally responsive in their everyday life.

If we can generalize beyond sex differences, we might speculate that differences in emotional responsiveness to situations encountered in everyday life would be related to differences in measures of mental health. Such a responsiveness difference would be consistent with some traditional theories of the etiology of mental illness that see emotional disturbances as coming from response patterns learned in early familial relations. In terms that we have been using in this study, childhood experiences would lead to the learning of differential cues triggering negative affect. The larger the number of cues associated with negative affect that a child learns, the more likely it is that in his adult environment he will frequently encounter situations which will trigger negative affect. Over time, this greater frequency will lead to a situation in which the individual experiences high levels of negative affect for fairly prolonged periods of time.

Of course, certain kinds of benign environments may mitigate these influences. Some lucky people may find themselves in situations productive of positive affect that will offset the effects which negative affect has on their overall sense of well-being. In cases where the environment becomes particularly stressful, those who had a relatively benign environment during their formative years might still experience high degrees of negative affect. These periods, however, would be much more environment dependent. As the particular situation producing negative affect disappeared, so would the experiencing of negative affect. If we observed such an individual over time, we would notice ups and downs of negative affect associated with particular stresses occurring in the environment; but overall, there would be no stable high level of negative affect.

8

Social Participation, Novelty, and Positive Affect

If negative affect is the dimension that is tapped by the usual indicators of poor mental health, what are we to make of our other dimension—positive affect? Contrary to our expectations, we have seen that people who express many negative feelings are no more likely to report a small number of positive feelings than are those who have few negative feelings. Since we have already shown that reports of positive affect do vary in an orderly fashion with differences in education and income, we would reject the hypothesis that positive affect is a random variable whose variations do not follow any discoverable pattern.

In our pilot study we found a clue that might help illuminate the relationship between income, education, and positive affect. We discovered that various measures of social participation—membership in voluntary organizations, meeting new people, getting together with friends, and being in touch with relatives—were all associated with positive affect but showed no relation to variations in negative affect. On the basis of the pilot-study results, we tentatively concluded that there was something about social participation and involvement in the world that was conducive to the experiencing of positive feelings. Similar results have also been reported by Phillips (1967).

Such a hypothesis offers an obvious explanation for at least part of the relationship between income, education, and positive affect. One of the best-established relationships in sociological literature is between socioeconomic status (SES) and social participation. While there is abundant evidence that people of higher SES are more likely to belong to voluntary associations (see, for example,

Hausknecht, 1962), there is also considerable evidence that people at higher educational and income levels are more likely to engage in all kinds of informal social activities as well (Blum, 1964) and generally to be more interested and active in the environment around them. They have, in Merton's phrase, a wider "effective scope" of operations in their daily lives.

Why this relationship should exist is less clear from the studies that have been done. It seems likely that the greater amount of discretionary income available to those in higher income brackets would enable them to afford the financial involvement necessary in belonging to a number of voluntary organizations and in sustaining a high level of social activity. Other contributing factors might be a larger social component in professional and upper white-collar jobs, a greater degree of control over the disposition of one's time, and the development of social norms involving the active participation of high SES people in civic, cultural, and community-welfare activities. Whatever the dynamics of this process, however, it is clear that as an individual moves up the socioeconomic ladder, he has a greater intensity and range of social activities, both formal and informal.

As a first approximation, then, we can hypothesize the following model of the relationship between social participation and positive affect: Higher socioeconomic status leads to greater social participation, which, in turn, leads to more experiences of positive affect. Such a model suggests that SES is a significant determinant of the kind and amount of social activity engaged in, which in turn will strongly influence the amount of positive affect experienced.

While such a model might explain the observed relationships between variables indicative of SES, social participation, and positive affect, it does not take us very far in understanding why social participation should be associated only with positive affect and show no relationship with negative affect. Since there has been little study of positive affect as a dependent variable, we do not have much in the way of a priori hypotheses to go on. A closer look at the empirical relation between various indicators of social participation and our affect measures will indicate whether the results of our pilot study are replicated in the present data and may give us some clues to the reasons for the observed associations.

INDICATORS OF SOCIAL PARTICIPATION

In our interview schedule we were particularly interested in obtaining information about the degree to which the respondents had been involved with other people during the recent past. Our concern was not only with social interaction but with the broader context of social participation, that is, the degree to which the individual is involved in the world about him—seeing people socially, going places, being involved in organizations, etc. We thus designed a rather wide-ranging battery of questions that would allow us to characterize people by their degree of involvement in their environment. The following are representative of the types of questions that we asked (for exact wording, see Appendix 3, Wave I questionnaire):

1. How many times during the past few weeks have you gotten together with friends? (Q. P3.)
2. During the past few weeks, what was the furthest distance you traveled from your home, other than going to work? (Q. P10.)
3. On the average, how many times a day do you chat with friends on the telephone? (Q. P4.)
4. During the past few weeks, how many new people have you met? (Q. P9.)
5. In recent months have you made any new friends? (Q. P5.)
6. During the past few weeks, how many relatives (families) have you been in touch with? (Q. P2.)
7. How many organizations do you take an active part in? (Q. P11.)

The gamma coefficients between the various social participation indicators are shown in Table 8.1. In general, the coefficients are positive and of modest size, with little variability among the pairs of items. As might be expected, there is a somewhat higher relationship among those items that might be described as related to informal sociability—that is, getting together with friends and chatting on the telephone—than with the more formal items, such as being active in organizations and in touch with relatives.

The fact that the items are all positively related to one another indicates some tendency for people who engage in one kind of social activity to engage in others. Therefore, for analytic purposes

we may combine the responses to several indicators into an index of social participation. Before deciding exactly how to combine the items, however, let us look at the relation of each item to the affect measures. By inspecting the correlation of the individual items with the affect measures, we may gain a richer understanding of the relationship between social participation and positive affect, and get a better idea of possible other variables influencing this relationship.

RELATION OF SOCIAL PARTICIPATION INDICATORS TO AFFECT MEASURES

Table 8.2 presents the coefficients of association between various measures of social participation and the Positive and Negative Affect Scales. The items are ordered according to the strength of the association with positive affect. As we had expected from our pilot-study results, the items show positive association with the Positive Affect Scale but a near-zero relation with the Negative Affect Scale. Here, then, we have a set of experiences that are related to a person's overall sense of psychological well-being only

Table 8.1 Coefficients of Association among Indicators of Social Participation, for Wave I (Gammas)

Social Participation Indicator	Got Together with Friends	Further Distance Traveled	Chatted with Friends on Telephone	Met New People	Made New Friends	In Touch with Relatives	Active in Organizations
Got together with friends	–	.33	.34	.29	.33	.17	.22
Further distance traveled		–	.20	.29	.20	.25	.24
Chatted with friends on telephone			–	.21	.27	.29	.18
Met new people				–	.21	.22	.16
Made new friends					–	.11	.21
In touch with relatives						–	.14
Active in organizations							–

$$N = 2,787$$

through their association with positive affect and not through any association with negative affect.

Further inspection of the table reveals another very interesting finding. The items at the top of the list, which have the highest correlation with positive affect, are those that involve new or varied experiences, such as making new friends or meeting new people. Those who travel a further distance might also be more likely to have new or varied experiences than those who do not venture far from their homes.

On the other hand, the items that are more purely indicative of sociability, such as getting together with friends, chatting with friends on the telephone, and being in touch with relatives, show a lower correlation with positive affect. We might expect, then, that novelty of experience may be an important element in determining the number of positive experiences a person has.

If we examine more closely what we have called "social participation," we see that two elements may be distinguished. First, there is the obvious "social" aspect, that is, the interaction with other people and the gratifications that might come from such interaction. We might call this aspect of social participation the "sociability" aspect. Indicators of sociability would be such items as being in touch with relatives, getting together with friends, and chatting on the telephone with friends.

Second, it seems likely that those who engage in activities with

Table 8.2 Coefficients of Association between Indicators of Social Participation and Positive and Negative Affect, for Wave I (Gammas)

Social Participation Indicator	Positive Affect	Negative Affect
Made new friends	.37	— .04
Met new people	.33	.06
Further distance traveled	.29	— .04
Got together with friends	.25	.02
Active in organizations	.22	— .08
Chatted with friends on telephone	.20	.08
In touch with relatives	.10	.03

$N = 2,787$

a high sociability component are also more likely to be in situations where they have varied or novel experiences. The probability that a person will encounter such experiences would seem to be in large measure a function of his involvement in the world about him, both physically and socially. While it is true that one can find new riches in deep study or in the intense cultivation of a limited environment, as Thoreau "traveled widely in Concord," these experiences would seem to be more the exception than the rule. Much more commonly, people depend on a wide range of acquaintances, experiences in different situations, and a fairly large amount of movement in physical and psychological space in order to achieve new experiences. Thus, we would expect that those who are high on measures of social participation, such as belonging to many organizations, getting together frequently with friends, meeting many new people, traveling greater distances, and generally being more involved in their environment, would be more likely to have new and varied experiences. We might call this component of social participation the "novelty" aspect. Such items as having met new people and made new friends, while including a sociability component, would also be strongly indicative of novel experiences.

There are some theoretical grounds for expecting both sociability and novelty to be associated with positive affect. The theoretical argument for the relationship between sociability and positive affect is perhaps best stated by Homans (1961) in his famous dictum that "interaction leads to liking." Such a view suggests that, on the whole, as people interact over some period of time, common interests, values, and beliefs come to the fore and differences are minimized or ignored. The perception of common interests, values, and beliefs leads to the development of positive sentiments and increases the liking between individuals. On the average, then, we would expect that those who have a high degree of social interaction would be more likely to have a high degree of positive sentiments toward many individuals. The existence of these positive sentiments could be expected to lead to many positive social experiences, which in turn might lead to the experiencing of positive affect.

The theoretical links between novelty and positive affect are somewhat less well known. In a search for the causes of positive

affect that would serve as a basis for a theory of motivation, McClelland *et al.* (1953) brought together data from various psychological experiments indicating that surprises or, more formally, moderate deviations from levels of adaptation are associated with positive affect. While these experiments concerned detailed individual psychological reactions to changes in physical stimuli, their implications for more complex behavior have also been noted. In a more recent work, Fiske and Maddi (1961) assembled a number of papers indicating the important role that variations in experience play in the development of cognitive processes and showing how new and varied experiences are productive of positive affect and sought out for their own sake. A particularly insightful paper by Platt (1961) shows the role of stimulus variability in the functioning of the nervous system and analyzes the relationship between stability and change in perception on the one hand and esthetic pleasures on the other. Although those who have dealt with the effects of variability in experience have not been concerned with social behavior, it seems a logical extension of the theory to expect that new or varied social experiences would also be related to positive affect.

Because of the close association between social participation and variability in experience, it is difficult to find measures that would allow us to separate out these two components. As we noted before, items such as meeting new people and making new friends, which are clearly indicative of novelty, are also indicators of sociability. Even those items that, on the face of it, do not indicate novelty, such as getting together with friends or chatting on the telephone, would probably have some novelty aspect.

In an effort to separate out these two components, we asked the following two additional questions on Wave III: "During the past few weeks, have you gone any place that you had never been before?" (Q. P16) and "Thinking back over the things you've done during the past few weeks, was there anything that you had never done before, or hadn't done in a long time? If yes, what was that?" (Q. P15). Responses to the latter question were coded into two categories—those activities that were done alone (ego-oriented activities) and those that were engaged in with other people (other-oriented activities). If people had engaged in more than one new

activity, they were coded only once in each category as appropriate. Thus, individuals may have engaged in both ego-oriented and other-oriented activities during the recent past. As Table 8.3 indicates, engaging in new activities and going new places are both associated only with positive affect. The former exhibits a level of association almost as high as that shown by making new friends, while the latter is closer to the level shown by the sociability items.

A report of a new ego-oriented activity is the closest we can come to having a pure measure of novelty. Thus, if in our other indicators of novelty it is really the sociability component that is causing the relationship with positive affect, we would expect there to be marked differences in the degree of association that new ego-oriented activities and new other-oriented activities have with positive affect.

When we look in Table 8.3 at the relationship between positive affect and engaging in new activities separately for those who had ego-oriented activities as compared to those who had other-oriented activities, we see no significant difference in the strength of the association. Indeed, the association for each type of activity taken separately is about the same as that for the two activities combined.

This point can be seen even more clearly if we look at the ridit values in Table 8.4. Here we see that those who had new ego-oriented activities only and those who had new other-oriented activities only were both significantly higher in positive affect than

Table 8.3 Novelty Items and Positive Affect, for Wave III (Gammas)

Novelty Item	Positive Affect	Negative Affect
Gone new places	.25	.04
Engaged in new activities	.36	.08
Ego-oriented[a]	.37	.07
Other-oriented[b]	.36	.08

N = 2,163

[a] Excludes people with other-oriented activities only.
[b] Excludes people with ego-oriented activities only.

those who had no new activities at all, but that there was no difference between the two types of new activity. We might also note, however, that those who had *both* ego- and other-oriented activities were the most likely to be high in positive affect. We thus conclude that novelty makes a distinct contribution that in fact may even be greater than whatever contribution is made by sociability.

Introduction of the notion of a novelty component to social participation suggests a more complex version of our earlier model. Social participation is now seen to have two components—sociability and novelty. Each of these components presumably has an independent association with positive affect. Since most measures of sociability involve situations that increase the probability of having new experiences, it will be difficult to separate out the effects of these two components very precisely. Our data, however, do enable us to make some preliminary attempts at separation in order to study the differential effects of each and perhaps give at least some rough estimates of their relative strengths.

TWO COMPONENTS OF SOCIAL PARTICIPATION

In order to look at the effects of the two components, we constructed two new indices. First, we made a "pure" sociability index, consisting of the three items that are most purely sociable—that is, being in touch with relatives, getting together with friends, and

Table 8.4 New Ego- and Other-oriented Activities and Positive Affect, for Wave III (Average Ridits)

New Activity	Average Ridit	N
None	.40	1,196
	*	
Ego-oriented only	.54	462
Other-oriented only	.54	391
Both ego- and other-oriented	.62	70
	*	
	N	2,119
	NA	44
	Total N	2,163

chatting with friends on the telephone. Breaking each item at the median response, we constructed a scale ranging from 0 to 3. Second, we made a novelty index by combining responses to the items that reflect novelty—that is, meeting new people during the past few weeks, going new places, and engaging in any new activities. These items were dichotomized into a simple "yes" or "no," and the scores added together to yield an index ranging from 0 to 3. Since two of these novelty items occur only in Wave III, we shall confine our analysis to responses from this wave.

In pursuing our analysis, we must take into consideration the fact that people who are high in SES are also more likely to be high in social participation. While we have been arguing that it is social participation in both its components, rather than SES directly, that is related to the experiencing of positive affect, it is possible that the observed associations between various indicators of sociability and novelty are in fact "spurious," that is, merely a consequence of the fact that both social participation and positive affect are related to SES. In the analysis to follow, we shall use an SES index composed of the combination of responses to the questions on respondent's educational level, family income, and occupation of the chief wage earner in the family, rather than treating the variables separately.

First, let us look at the relationship between SES and the two components of social participation. We see in Table 8.5 that SES

Table 8.5 Socioeconomic Status, Sociability Index, Novelty Index, and Positive Affect, for Wave III (Gammas)

Item	Gamma
SES and sociability index	.29
SES and novelty index	.35
Sociability and novelty indices	.29
Novelty index and positive affect	.34
Novelty index and positive affect, controlling for SES	.30
Sociability index and positive affect	.24
Sociability index and positive affect, controlling for SES	.21
SES and positive affect	.23
SES and positive affect, controlling for sociability and novelty	.18

$$N = 2,163$$

is positively related to both sociability (gamma = .29) and novelty (gamma = .35) but that the relationship is stronger with the novelty index. Sociability and novelty themselves are related (gamma = .29), as we have seen earlier.

When we look at the separate relationships between the novelty and sociability components and positive affect, we see that novelty is indeed more strongly related to positive affect, although our "pure" sociability index still shows a modest association with positive affect. When we control for SES, these relationships are not substantially reduced. Thus, the relationship is not a spurious one.

In our model, we suggested that the relationship between SES and positive affect was due to the two components of the social participation index. In order to test this model, we must look at the relationship between SES and positive feelings, controlling for both sociability and novelty simultaneously. When we control for these components, we find that the net partial gamma between SES and positive feelings is reduced from .23 to .18, which suggests that some, but not all, of the relationship between SES and positive affect is due to the fact that higher SES individuals are also more likely to be high in novelty and sociability.

We are now in a position to examine more closely the relative contribution of novelty and sociability and to look for possible interactions among the variables. To do so we must shift our mode of analysis from viewing the overall relationships described by the gamma coefficients to observing the variation in average ridit values as we move from group to group.

Table 8.6 presents the average ridit values for the Positive Affect Scale for each novelty, sociability, and SES group. Looking first across the rows of the table, we see that within each novelty and sociability group, those who have a medium or high SES level are higher in positive affect than those in the low SES group, although the difference is statistically significant only for those who are low in both novelty and sociability. There are no significant differences, however, between the medium and high SES groups. This table suggests that sociability and novelty contribute to reduction in SES differences, but that there is still a substantial difference between those who are really low in SES and those who are at a medium or higher level.

Looking down the columns, we see that even among the low SES respondents, sociability and novelty do increase the probability of having high positive affect. Those who are low in SES but high in novelty and sociability are likely to be higher in positive affect than those who are high in SES but low in novelty and sociability. This effect, however, is not sufficient to overcome the other consequences of low SES level; and we must continue to look elsewhere for a total explanation of the SES differences.

In order to examine more carefully the differential effects of novelty and sociability, let us look at the differences between those who are low and high in sociability among those who are homogeneous on novelty. In order to see this difference most clearly, we have abstracted from Table 8.6 a table of difference scores (Table 8.7). This table was constructed by taking the difference in average ridit values between those who were low and high in sociability for each novelty group at the three SES levels. These differences indicate that those who are high in sociability are somewhat more likely than those who are low in sociability to be high in positive effect at each SES and novelty level, although the differences are only significant among those who have low novelty and low or medium SES.

It appears, then, that sociability is in some sense a source of novelty for those who do not have other such sources. Those with

Table 8.6 Socioeconomic Status, Novelty, Sociability, and Positive Affect, for Wave III (Average Ridits)

Novelty	Sociability	SES Level		
		Low	Medium	High
Low	Low	$.33_{(433)}$ *	$.40_{(233)}$ *	$.44_{(151)}$ *
Low	High	$.42_{(146)}$	$.51_{(160)}$	$.49_{(89)}$
High	Low	$.49_{(139)}$	$.54_{(168)}$	$.53_{(163)}$
High	High	$.52_{(102)}$ *	$.60_{(180)}$ *	$.61_{(165)}$ *

N = 2,129

higher social interaction rates would probably be exposed to situations in which the chance of some novel event would be greater than for those with low interaction rates. While we have attempted to take out those items that have an overt novelty component, it is still likely that those who are higher on sociability will have a higher probability of having some kind of varied or novel experience, even though they may have a low score on our novelty index.

We can use a similar approach to look at the differences in average ridit values for those who are low and high on the novelty index at each SES and sociability level (Table 8.8). We see that novelty makes more of a difference for those who are homogeneous on sociability than sociability does for those who are similar on novelty. We thus conclude that a larger part of the variance in positive affect that we have been attributing to social participation comes from the experience of novel or varied activities rather than from sociability per se. Because of the very close connection

Table 8.7 Socioeconomic Status, Sociability, and Positive Affect, Controlling for Novelty, for Wave III (Differences between Average Ridits for Low and High Sociability)

Novelty	SES Level		
	Low	Medium	High
Low	.09*ᵃ	.11*	.05
High	.03	.06	.08

ᵃ An asterisk indicates that the difference score is significant.

Table 8.8 Socioeconomic Status, Novelty, and Positive Affect, Controlling for Sociability, for Wave III (Differences between Average Ridits for Low and High Novelty)

Sociability	SES Level		
	Low	Medium	High
Low	.16*ᵃ	.14*	.09*
High	.10*	.09*	.12*

ᵃ An asterisk indicates that the difference score is significant.

between the probability of having varied experiences and the degree of social interaction engaged in, we cannot, however, rule out the possibility that the social or companionship aspect of social participation may not have an independent effect.

This more complex model does, in fact, give us a greater insight into the process by which social participation is related to positive affect. The major modification we would make in the simple notion that social participation is associated with positive affect is that the relationship between sociability and positive affect is mediated partially by the increased probability of novel or varied experiences occurring. We would also note again that while SES is associated with greater social participation, there are still other aspects of SES that would appear to have a bearing on positive affect but do not have anything to do with social interaction. We shall investigate some of these aspects in later chapters on work and marital adjustment.

CHANGES IN SOCIAL PARTICIPATION AND IN POSITIVE AFFECT

The panel data enable us to push the analysis beyond the relationships between various indicators of social participation and positive affect at one point in time and to examine the changes in the two variables over time. As in our previous analysis of change in two variables, we shall use the ridit values for the change scores in the dependent variables—in this case, change in the positive affect measure between two time periods.

We begin by looking at changes for the entire sample between Waves I and III. Because our novelty measures were added to the questionnaire only on Wave III, we shall not be able to perform an analysis exactly parallel to the one done above for the separate novelty and sociability indices. Instead, we shall use a composite index consisting of the items in the sociability index plus the items on the number of new people met during the past few weeks and the number of organizations active in, which appeared on both waves. We shall refer to this composite index as the "social participation index."

Table 8.9 presents the average ridit values for the positive affect change score between Waves I and III for groups differing in the

amount of change in social participation, as measured by our social participation index. There is some tendency for the few people who went from low to high in social participation during the nine months between interviews to be more likely than the sample as a whole to increase their positive affect scores, and for those who decreased in social participation to be less likely to increase in positive affect. However, the differences are not large and do not meet our criteria of statistical significance.

Data from the Detroit suburban sample (Table 8.10) between

Table 8.9 Changes in Social Participation and Changes in Positive Affect, Wave I to Wave III (Average Ridits for Positive Affect Change)

Wave I Social Participation	Wave III Social Participation		
	Low	Medium	High
Low	.52 (268)	.52 (241)	.60 (50)
Medium	.44 (180)	.51 (476)	.50 (221)
High	.46 (39)	.44 (220)	.50 (401)
	N	2,096	
	NA	67	
	Total N	2,163	

Table 8.10 Changes in Social Participation and Positive Affect, between Waves I–II, II–III, and III–IV (Average Ridits for Positive Affect Changes)

Social Participation Change	Between Waves		
	I–II	II–III	III–IV
Decreased	.51 (176)	.45 (157)	.45 (155)
Remained the same	.51 (124)	.49 (105)	.47 (116)
Increased	.59 (176)	.52 (159)	.48 (139)
N	476	421	410
NA	4	3	5
Total N	480	424	415

each of the smaller waves of interviewing show a pattern similar to that between Waves I and III, although here we can consider only the direction of change without taking into account the magnitude. Between each of the smaller time periods, there is a slight, but not statistically significant, tendency for those who increased in social participation to be more likely to have increased their positive affect than those who either decreased or remained the same in social participation.

It is disappointing that the differences observed between changes in social participation and positive affect are small, particularly in light of the findings of the previous chapter that indicators of psychological distress, such as the worry and anxiety indices, were related to changes in negative affect over time. We should keep in mind that the overall cross-sectional coefficients of association between the indicators of distress and negative affect were higher than the similar coefficients between the indicators of sociability and novelty and positive affect. There is some indication that the cross-sectional gamma coefficients between variables must be of the magnitude of .40 or higher before there will be a significant relationship between *changes* in the two variables.

FURTHER SPECIFICATIONS OF RELATION BETWEEN SOCIAL PARTICIPATION AND POSITIVE AFFECT

Having outlined the general model of the relationship between social participation and positive affect, we are now in a position to explore some specifications that will make the model more detailed. A major line of exploration that would appear to be most fruitful is an examination of individual differences in orientation toward social activity. Up to this point we have been considering only the quantitative aspects of social interaction and novelty, with the implicit assumption that everyone views these elements in the same way. Ordinary experience, as well as a large number of studies in personality psychology, indicates that such an assumption is certainly not true and that there are considerable individual differences in the way people react to particular social or novel experiences. Since the amount of social activity an individual engages in is not wholly within his control, we cannot assume that the differences in social participation are purely a function of individual desires for such participation. Indeed, one of our main arguments has been

that certain social-structural characteristics work to produce differ-
ential social participation rates and that these effects are somewhat
independent of how much an individual might like or enjoy such
activity. Thus, among those who are high in social participation,
we might expect that there are many who do not like such activity
and would prefer to be doing something else; and similarly, among
those who are low in social participation, there are some who
would prefer to have a higher rate but have been constrained by
other factors.

Satisfaction with Social Life

We can investigate individual differences in orientation toward
social activity in several ways. As a first step, we shall look at indi-
viduals' self-ratings of their satisfaction with their current social
life. We would expect that regardless of their level of satisfaction,
there would be little relationship between social participation and
positive affect among those who are satisfied with their social life
because they would presumably be satisfied with their present
amount of participation. Thus, those who are satisfied with low
social participation should have the same level of positive affect
as those who are satisfied with high social participation. Similarly,
those who are dissatisfied with their social life should have about
the same level of positive affect regardless of their level of social
participation. To put the matter more formally, we would expect
the association between sociability and positive affect to be sub-
stantially reduced when we control for expressed level of satisfac-
tion with social life. Since the question on satisfaction with social
life was asked only on Wave III, data to test this hypothesis are
limited to that wave.

Looking at the relation between stated degree of satisfaction
with social life and the two components of social participation,
sociability and novelty, we see in Table 8.11 that there is a small
positive relationship between the amount of sociability and being
more satisfied with one's social life (gamma = .17), but that there
is no relationship between the degree of novelty experienced and
satisfaction with social life (gamma = .01). Inspection of the per-
centage cross-tabulation (table not shown here) indicates that the
small relationship between sociability and satisfaction is due pri-
marily to the increased likelihood of those who are very satisfied

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with their social life being high in sociability, with relatively little difference in amount of sociability between those who are not too satisfied and those who are pretty satisfied with their social life. Even though the novelty component of social participation is related to positive affect and, as we have argued above, is closely related to the kind of social life engaged in, there is no association between degree of varied or novel experiences and professed satisfaction with social life.

Satisfaction with social life also has a small positive association with positive affect. This would be expected on the basis of the general relationship with sociability, although it is perhaps a little bit higher than one might expect since there is no association between novelty and satisfaction with social life. A possible confounding factor might be SES, which is related to both positive affect and sociability. When this is checked, however, we find no relationship between SES and avowed satisfaction with social life (gamma for men $= -.03$ and for women $= +.07$).

Given the fact that those who are more satisfied with their social life are also somewhat more likely to be high in sociability, what can we say about the partial relationship between sociability and

Table 8.11   Satisfaction with Social Life, Sociability, Novelty, and Positive Affect, for Wave III (Gammas)

Relations	Gamma	N
Satisfaction with social life and:		
Sociability index	.17	2,159
Novelty index	.01	2,159
Positive affect	.18	2,125
Sociability and positive affect	.24	
For level of satisfaction with social life:		
Very satisfied	.28	745
Pretty satisfied	.18	1,088
Not too satisfied	.27	292
Novelty and positive affect	.34	
For level of satisfaction with social life:		
Very satisfied	.35	745
Pretty satisfied	.33	1,088
Not too satisfied	.40	292

positive affect for those at different levels of satisfaction? As we noted above, we expected that this relationship would be reduced, on the assumption that those who are satisfied with their social life would have the same likelihood of high positive affect regardless of their degree of sociability. Among those who are dissatisfied, we would expect a lower general level of positive affect but little relationship between the degree of sociability and the amount of positive affect because their current level of sociability is not such as to be rewarding to these people. When we look at the partial relationship between sociability and positive affect for each level of satisfaction with social life (Table 8.11), we see, however, that our expectations are not fulfilled and the correlations are not reduced. There is, in fact, an inconsistent pattern: the partial relationships are somewhat increased for the "very satisfied" and the "not too satisfied" categories and somewhat reduced for the "pretty satisfied" category.

We can get a somewhat clearer idea of what is going on here by looking at the average ridit values for positive affect within each of the sociability and satisfaction categories, as presented in Table 8.12. Looking down the columns of the table, we note, as in the

Table 8.12 Satisfaction with Social Life, Sociability, and Positive Affect, for Wave III (Average Ridits)

Sociability Index	Satisfaction with Social Life		
	Not Too Satisfied	Pretty Satisfied	Very Satisfied
Very low	.24 (84) *	.38 (252)	.41 (160) *
Low	.40 (122) *	.46 (437)	.45 (229)
Medium	.46 (68)	.50 (291)	.56 (233)
High	[.45]^a (18) *	.52 (108) *	.63 (123) *
	N	2,125	
	NA	38	
	Total N	2,163	

^{a} Brackets indicate ridits based on less than twenty cases.

case of the partial gammas, that there is a significant relationship between sociability and positive affect within each of the satisfaction categories. However, now we see that among those who are not too satisfied with their social life, it is primarily those who are very low in sociability who are extremely low in positive affect. Among those who are pretty or very satisfied with their social life, increases in the probability of being high in positive affect are more evenly distributed as the level of sociability increases.

Looking across the rows of Table 8.12, we see that the degree of satisfaction with social life does make some difference in positive affect at each level of the sociability index. Except for those who are very low in sociability, these differences do not reach the level of statistical significance, although they are almost significant in the case of those who are medium and high in sociability. Those who are very low in sociability but very satisfied with that condition are about as likely to be high in positive affect as are those who are high in sociability but not too satisfied with that state.

In sum, then, we can say that one individual factor, at least as measured by expressed degree of satisfaction with social life, does specify the relationship between sociability and positive affect somewhat, but not nearly to the extent that we had anticipated. It seems clear that at least at the levels of sociability we have measured, greater amounts of sociability are related to higher positive affect.

Two words of caution are in order here. The first is that our simple question on satisfaction does not differentiate between the quantity and quality of social interaction. Thus, among those who are high in sociability but are dissatisfied, we do not know whether they are dissatisfied with the quality of their social life or its quantity, and if indeed it is quantity, whether they would like it to be even higher or lower. This measure, then, is only a very rough approximation of a measure of individual attitudes toward social interaction. The second caveat is that we are dealing with a rather limited range of social interaction and our measure does not allow us to differentiate extreme cases of high social interaction. Thus, it is possible that there would be a point beyond which higher degree of sociability would not be related to positive affect; and indeed, those who are not too satisfied or pretty satisfied with their

social life might be approaching that point. These cautions, how-ever, need not obscure the fact that despite some individual varia-tion, there continues to be a positive correlation between quantity of social interaction and reports of positive affect.

Esteem for Others

Another way of approaching the problem of individual variation in orientation toward social interaction is to examine the general attitudes that individuals have toward others. In order to investigate this orientation, we asked several questions on Wave III to measure our respondents' general attitude toward the trustworthiness and likability of other people. An "esteem-for-others index" was con-structed by taking responses to the following three items (see Appendix 3, Wave III Q. H11):

1. "Most of the people I meet are selfish and inconsiderate."
2. "I've found that it doesn't pay to put yourself out for other people."
3. "I've found that most people can be trusted."

For items (1) and (2), a weight of 0 was given for the response "True for me," a weight of 1 for "Don't know," and a weight of 2 for the response "Not true for me." For item (3), the scoring was reversed. An individual's score on the index was the sum of his scores for the three items.

The psychological assumption underlying the explanation of the association between social participation and positive affect is that social interaction is rewarding. Such interaction, however, might not be rewarding for those who are suspicious of others or find them selfish, inconsiderate, and untrustworthy. Such a negative orientation toward others might lead one to avoid social interaction where possible and to get little positive gratification out of it when it does occur. Thus, among those who are low in esteem for others, the correlation between social participation and positive affect should be lower than among those who are high in esteem for others.

Even among those who have a negative orientation toward most others, there may be a small group of friends and relatives with whom interaction is rewarding. Thus, if we used our "pure" soci-

ability measure, which is an indicator of the degree of interaction with one's friends and relatives, the expected differences between high and low esteem for others might not occur. It thus seems more appropriate to use our overall social participation measure, which includes not only interaction with friends but also other indicators of social interaction such as organizational participation and number of new people met. Even though the latter item reflects novelty, it would be important in this context because it is an item that one would expect to be quite sensitive to a general orientation toward others.

We anticipated that there would be some patterning of esteem for others along sex and SES lines. Given the canons of courtesy toward women, which persist in spite of considerable movement toward equality between the sexes, women should experience more courteous and considerate treatment from others, and thus their esteem for others should be higher than that of men. Furthermore, people at the upper SES levels receive more respect and deference in life and are less vulnerable to "the slings and arrows of outrageous fortune." Therefore, they should have a more positive orientation than those, particularly those from the lower SES groups, who are much more susceptible to arbitrary, unreliable, and discourteous treatment.

We find that only one of these expectations is fulfilled. There is a substantial association between SES and esteem for others (gamma = .51), with those who are low in SES being particularly likely to have low esteem for others. On the other hand, while women are somewhat more likely to have high esteem for others— 51 per cent of the women, compared with 46 per cent of the men—the difference is small and insignificant.

When we control for SES, we see that esteem for others does indeed specify further the relationship between social participation and positive affect. Looking across the rows of Table 8.13, we see that among those who have high esteem for others, there is a significant relationship between sociability and positive affect. On the other hand, among those who are low in esteem for others, there is no significant relationship between sociability and positive affect, although those who are higher in sociability at the medium and high SES levels tend to have higher positive affect.

It is apparent, then, that a number of individual orientations specify the degree to which sociability will be associated with the experiencing of positive affect. The two we have investigated, satisfaction with social life and esteem for others, are only part of the picture; and there are undoubtedly many other factors that affect the extent of the relationship. Even these two, however, do not entirely explain the relationship between sociability and positive affect. As we noted earlier, our measure of sociability may be picking up some elements of novelty or varied experience, which might contribute toward higher positive affect even if the social component of the experience were not particularly rewarding.

SUMMARY AND CONCLUSIONS

In this chapter we have presented data replicating our pilot-study findings that social participation is associated with positive affect and not with experiences of negative affect. In addition, we have tried to show that the concept of social participation may be composed of two analytically distinct, although empirically mixed, com-

Table 8.13 Socioeconomic Status, Esteem for Others, Sociability, and Positive Affect, for Wave III (Average Ridits)

SES Level	Esteem for Others	Sociability			
		Very Low	Low	Medium	High
Low	Low	.32 (193)	.40 (219)	.45 (131)	.36 (37)
	High	.32 (55)	.43 (105)	.50 (60)	.56 (20) *
Medium	Low	.44 (69)	.41 (116)	.53 (92)	.56 (32)
	High	.45 (65)	.51 (151)	.54 (140)	.62 (76) *
High	Low	.43 (45)	.49 (64)	.56 (54)	.58 (22)
	High	.41 (70)	.55 (135)	.55 (115)	.63 (63) *
	N	2,129			
	NA	34			
	Total N	2,163			

ponents—sociability and novelty. The data indicate that both of the components are associated with positive affect, with novelty showing the stronger relation. Several individual predispositions, such as satisfaction with one's social life and esteem for others, were shown to be mediating factors that specify the degree of association between sociability and positive affect.

One word of caution in interpreting these results is necessary. We have tried to avoid implying that a simple causal connection exists between social participation and positive affect. Our data, in fact, show only that there is an association between the two types of experiences, not that one is the cause of the other. It is probable that people who have experienced considerable positive affect are more likely to go out and engage in social activities or get involved in activities productive of new or varied experiences. In all likelihood, however, there is not a simple causal connection in either direction, but rather some sort of dynamic cycle. Those who feel good may be more likely to engage in social activities and engaging in those activities may increase the probability that they will encounter the kinds of experiences productive of positive affect, which in turn may make them more disposed toward engaging in further activities. Over the course of a person's life, the cycle may at times increase and at times decrease, responding not only to the forces involved in the particular social activities but also to a host of other things that are happening in his life. The associations we have observed between positive affect and social participation are not very strong and suggest that many other variables—most of which we have still to learn about—are involved in both the experiencing of positive affect and engaging in social activities. We hope that the findings we have shown here will serve as a stimulus toward further research in defining these variables.

9

Adjustment in Major
Roles I: Marriage

Most adult Americans are married. Figures from the U. S. Bureau of the Census (1963) show that about 80 per cent of Americans aged twenty-one to sixty are currently married, varying from 47 per cent among the younger groups to over 85 per cent among the older groups, i.e., those thirty to sixty years old. Because marriage is the central role around which family life is organized and is such a pervasive role in society, we would expect that adjustment in marriage would be strongly related to overall conceptions of happiness. Indeed, previous studies have uniformly found a strong association between general levels of self-reported happiness and reports of marital happiness (Watson, 1930; Wessman, 1956; Bradburn and Caplovitz, 1965). In this chapter we shall be concerned with the relations that marital status and, for the married, measures of marriage adjustment have to the two components of psychological well-being—positive and negative affect.

MARITAL STATUS AND PSYCHOLOGICAL WELL–BEING

Before investigating the relationship between marital and overall happiness, let us look at the relation that marital status has to our measures of psychological well-being. Without necessarily assuming that our respondents are such conformists that deviations from the conditions of the majority will lead to a serious decrease in feelings of well-being, the fact remains that the structure of society takes the family unit as the focus of organization for social and economic life. Society treats those who do not fit into this pattern as "special cases." Since these situations are by definition not "normal," it would not be surprising to find that those who are not

married experience a lower sense of psychological well-being than do those who are living in socially sanctioned family units. Such a decrement in happiness would be expected especially for those who have entered into marriages that have been broken for a variety of reasons, e.g., those people who are currently separated from their spouses, are divorced, or are widowed. A possible exception to this generalization might be those who are divorced. For these people, the positive benefit gained from leaving an unhappy situation might outweigh whatever negative costs there might be in returning to the unmarried state.

While our hypothesis about the level of happiness experienced by those who have terminated a marriage is clear, the case is not so clear for those who have never entered into a marriage. Indeed, in the study of mental health and psychological well-being, surprisingly little attention has been given to differences between married and single, i.e., never-married, persons. The popular stereotype of the single person is that of the carefree, happy bachelor and the worried, unhappy spinster. The studies that have investigated empirically the differences between single men and single women, however, have unanimously concluded that this is a false picture and that unmarried men are unhappier and more maladjusted than unmarried women. Srole *et al.* (1962) found that single men in Manhattan had poorer mental health ratings than did single women. Gurin *et al.* (1960) found in a nationwide survey that single men were unhappier than single women. In our pilot study (Bradburn and Caplovitz, 1965), similar findings were reported. In a more recent study by Knupfer, Clark, and Room (1966), single men were again found to be unhappier and to show greater signs of psychiatric impairment than single women. The unanimity of the findings of these studies is indeed impressive in the light of the frequently contradictory findings of studies in the social sciences.

In general, the data from our present study confirm those of previous studies. As seen in Table 9.1, people who are married are much more likely than people who are not currently married to report that they are "very happy," and much less likely to report that they are "not too happy." Among the not-currently married, those who have been married but are now separated, divorced, or widowed are by far the unhappiest, while those who have never been married fall between the two.

Looking at the differences between men and women, however, the pattern is not as clear as reported in the other studies. Among those who have been married but are now divorced or widowed, men are less happy than women. The sex difference is particularly marked for the divorced: divorced men are much more likely than divorced women to report that they are "not too happy" but no less likely to report that they are "very happy." Among those who are separated from their spouses, women are more likely to report that they are "not too happy" but also more likely to report that they are "very happy." There are only slight or no differences among those who are single: single men are a little more likely than single women to report that they are "not too happy," and the sexes are equal in their likelihood of reporting that they are "very happy." Overall, then, the differences are consistent with the previous findings that men who are not currently married, for whatever reason, tend to suffer more than women in terms of avowed happiness. In our present study, however, the differences are of no great magnitude.

Table 9.1 Marital Status and Avowed Happiness, by Sex, for Wave I

Marital Status	Per Cent "Very Happy"	Per Cent "Pretty Happy"	Per Cent "Not Too Happy"	Total Per Cent	N
			Men		
Married	35	56	9	100	1,009
Never married	18	63	19	100	150
Separated	7	55	38	100	42
Divorced	12	53	35	100	34
Widowed	7	56	37	100	27
			Women		
Married	38	55	7	100	1,171
Never married	18	68	14	100	79
Separated	12	45	44	101[a]	98
Divorced	11	66	23	100	64
Widowed	14	54	32	100	90
				N	2,764
				NA	23
				Total N	2,787

[a] Not 100 per cent because of rounding.

Looking at the affect measures in Table 9.2, we see that marital status has some relation to both the positive and negative affect dimensions. Compared with the currently married, in general the divorced, separated, and widowed are lower in positive affect, higher in negative affect, and consequently lower on the Affect Balance Scale (ABS). Regardless of marital status, sex differences are small. Single men are more likely than married men to be high in negative affect, but there is little difference between single and married women or between single men and single women.

Perhaps it would be more meaningful to phrase this difference the other way around: married men are less likely to be high in negative affect than are either single men or married or single women. We should remember, as is again indicated in this table, that women tend to be higher than men in negative affect. While disruption of the married state tends to be associated with higher negative affect regardless of the reason, the differences for not-currently married groups are somewhat greater for men than for women. Being single, as compared with being married, does not appear to be associated with any higher negative affect for women; but being single does bring men up to the level of both the single and married women. Since we have seen that negative affect is strongly related to more traditional measures of anxiety and psychological impairment, the fact that there is a difference between

Table 9.2 Marital Status and Indicators of Psychological Well-Being, by Sex, for Wave I (Average Ridits)

Marital Status	Positive Affect		Negative Affect		Affect Balance Scale	
	Men	Women	Men	Women	Men	Women
Married	.45 (992)	.49 (1,173)	.45 (997) *	.53 (1,180)	.48 (989) *	.44 (1,167)
Never married	.45 (148)	.48 (80)	.54 (147)	.54 (80)	.41 (147)	.42 (80)
Separated	.39 (42)	.35 (93)	.60 (44)	.61 (93)	.32 (42)	.30 (92)
Divorced	.42 (32)	.43 (62)	.50 (32)	.56 (62)	.39 (30)	.39 (62)
Widowed	.34 (24)	.34 (87)	.47 (25)	.57 (88)	.38 (24)	.32 (86)

single and married men but not between single and married women may be taken as at least partial confirmation of the general findings of the other studies that single men suffer greater psychological distress than do single women.

Although there seem to be consistent data showing that single men are unhappier than single women, there is little understanding of the reasons behind this fact, particularly since the data seem at variance with popular conceptions based on everyday experience. Three general types of explanations are used to account for the differences in psychological well-being between single men and single women. The first explanation views marriage as a selection process. Since the culture defines the male role as one of initiator of the marriage relationship, this view hypothesizes that men who are more prone to psychiatric impairment or maladjustment will be less likely than psychologically healthy men to feel capable of entering into a marriage relationship. It assumes also that no such process works among women and that psychologically maladjusted women are as likely to be asked as are psychologically healthy women, or at least, if there is a difference, it does not work to the degree that it does for men. If such a differential selection process is at work, among those who are in the age brackets where a vast majority of people are married, we would find more psychologically impaired men than women among the never married. This view is supported by Knupfer *et al.* (1966).

The second explanation might be called a reactive one. This view hypothesizes that men simply react more negatively to the state of being single. It suggests that women are more capable than men of establishing close relationships with others outside of marriage, that they find less discontinuity between their role in keeping house and their work role, and that they are subjected to more cultural restraints on their behavior and thus escape some of the anomie inherent in the extreme freedom that is part of the cultural myth of the carefree bachelor. A reactive explanation was offered for the findings in our pilot study, and is suggested by Gurin *et al.* (1960).

The third explanation is a demographic one. It suggests that the samples studied had, for some reason, a higher proportion of healthier, happier women than in the population at large or that the samples differed in some major demographic characteristics which

were related to happiness or mental health. This type of explanation was given by Srole *et al.* (1962) for their findings in midtown Manhattan. They pointed out that a large proportion of the people in their sample had migrated to New York City from some other part of the country and that there may have been selective out-migration with many of the psychiatrically impaired women returning to their hometowns, while the men tended to remain in the city.

In all of the studies considered so far, single persons have been treated as an undifferentiated group. Even though the people interviewed were all adults, there is the possibility that many of the single people were still young enough to be considered "potential marrieds" rather than "confirmed bachelors or spinsters." Most hypotheses about the reasons for the observed differences between single men and women have an underlying assumption that these people belong in the latter class rather than the former. If we divide our single respondents into those who are young and still have a high probability of getting married and those who are of an age in which the probability of marriage is smaller, although certainly still greater than zero, we may be able to cast further light on some of the hypothetical explanations for the observed differences.

In our sample we have enough cases to make some meaningful analyses if we divide the single respondents into those under twenty-five and those twenty-five or older. While this dividing point is not ideal since many people get married after twenty-five, U. S. Bureau of the Census figures (1963) show that only 10 per cent of the men and 7 per cent of the women between the ages of twenty-five and sixty-four are single. Between the ages of twenty and twenty-four, 52 per cent of the men and 29 per cent of the women are single. These differences are great enough to suggest that twenty-five is a meaningful age at which we can distinguish the "potential marrieds" and look at the differences between these and older, "confirmed" single people.

Before examining the data by age groups, let us formulate the hypotheses that we could draw from two of the suggested explanations of the observed sex differences. On the differential selection theory, we would expect that younger single men would be happier than older ones. Many of the former would not yet be married for

a variety of reasons unrelated to psychological impairment, such as pursuing a higher education, waiting until they are established in a job or profession, or still looking for the "perfect" girl. Among the older single men, however, we should expect a higher proportion of those with some psychological impairment that prevented them from marrying and a greater tendency for unhappiness and other signs of lowered psychological well-being, particularly negative affect.

The predictions from this theory are less clear for women. Since psychological impairment is not particularly an issue, we would expect simply that the older single women would be a little less happy than the younger ones because with every passing year the chances of getting married become less. On the other hand, these women may, in the meantime, have become involved in work situations that offer them a full-time career and a partial substitute in their lives for marriage. However, data in Chapter 10 offer no support for this expectation. On the selection theory, then, we would predict that younger single men would be happier than older single men, and that probably younger single women would also be happier than older single women, but that the older single men should be the least happy group.

The reactive theory would make at least partially different predictions. Since this theory hypothesizes that the condition of being single itself and the type of life that it implies are crucial, it would predict that the younger single men would be less happy than the older single men. Because the younger men are expecting to get married and are in an age bracket where large numbers of their peers are getting married, we would expect that they would be particularly sensitive to the disadvantages of bachelor life and would be unhappier with it. Among the older bachelors, we would expect that they have come to terms with their way of life and are less actively dissatisfied with it, although they may still be less happy about being a bachelor than women of comparable age may be about being single. This reactive theory would make predictions similar to those of the selection theory regarding the differences between older and younger single women. Thus, according to this theory, the younger single men should be the least happy, and single men should be less happy than single women at each age level.

When we look at the data (Table 9.3), we see that they partially support the reactive theory. Whereas in the aggregate there were no differences between single men and women in the probability of reporting that they were "very happy," we now see that single men under twenty-five are less likely to report being "very happy" than are single women under twenty-five, although both are still less likely to be "very happy" than are married people of similar age. Parallel differences would be found if we looked at the per cent saying that they are "not too happy"—13 per cent for the single men and 8 per cent for the single women. These data support the reactive theory.

When we look at those aged twenty-five and over, we see a reverse picture. Contrary to what we expected on the differential selection theory, but as we did expect on the reactive theory, we find that older single men are more likely than younger single men to report being "very happy." As expected by both theories, older single women are less likely than younger single women to report being "very happy." On the other hand, some support for the differential selection theory is found in the per cent reporting that they are "not too happy." A table not presented here shows that for both single men and single women, the proportion saying that they are "not too happy" is higher among the older than among the younger groups, although there are no sex differences.

Table 9.3 Marital Status and Avowed Happiness, by Age and Sex, for Wave I (Per Cent "Very Happy")

Age	Sex and Marital Status			
	Men		Women	
	Single	Married	Single	Married
Under 25	15 (47)	42 (81)	25 (24)	47 (131)
25 and over	20 (100)	34 (921)	15 (54)	37 (1,050)

N	2,408
NA	24
Separated, widowed, divorced	355
Total N	2,787

Examining the affect measures with the added age grouping (Table 9.4), we find a pattern similar to that in Table 9.2 for the whole sample, except that the increase in negative affect among single men appears to be concentrated most heavily in the under-twenty-five group, who are significantly higher in negative affect than are married men in the same age group. While older single men are also higher than older married men in negative affect, the difference is not as large as with younger men. The higher probability of negative affect for the younger single men would be consistent with the reactive theory, but would not be predicted by the differential selection theory.

From these data, we can draw the general conclusion that there is some evidence for the reactive hypothesis. The reactive process appears to be most acute in the younger men, although a differential selection process may account for some of the differences observed among the older single people. Obviously these are not mutually exclusive processes nor should they obscure the evidence indicating that single women still report being less happy than mar-

Table 9.4 Marital Status, Positive and Negative Affect, and Affect Balance Scale, by Age and Sex, for Wave I (Average Ridits)

Age	Men		Women	
	Single	Married	Single	Married
	Positive Affect			
Under 25	.51 (47)	.60 (80)	.54 (24)	.59 (131)
25 and over	.42 (101)	.44 (911)	.46 (54)	.47 (1,038)
	Negative Affect			
Under 25	.62 (47)	.47 (81)	.60 (24)	.61 (131)
25 and over	.51 (95)	.45 (915)	.53 (54)	.52 (1,046)
	Affect Balance Scale			
Under 25	.42 (47)	.59 (80)	.45 (24)	.49 (131)
25 and over	.45 (100)	.51 (908)	.46 (54)	.47 (1,033)

ried women, even though differences between single and married women do not show up when our affect measures are used.

Our data do not permit us to draw any conclusions about the differential migration hypothesis advanced by Srole *et al.* (1962) to account for their findings in New York. However, since these sex differences are replicated in samples of widely divergent types, including small towns and large metropolitan areas, and since other hypotheses appear capable of explaining the data at least on an a priori basis, we feel that this hypothesis is not very promising.

MARRIAGE HAPPINESS AND OVERALL HAPPINESS

Turning now to the question of marriage happiness, and its relation to overall happiness, let us look first at the general distribution of reports of marriage happiness in our sample. Respondents were asked a question similar to the one on overall happiness: "Taking all things together, how would you describe your marriage? Would you say that your marriage was very happy, pretty happy, or not too happy?" Table 9.5 presents the per cent reporting that their marriages were "very happy," by sex and socioeconomic status (SES).

When compared with reports of avowed happiness in Chapter

Table 9.5 Marriage Happiness by Sex and Socioeconomic Status, for Waves I and III (Per Cent "Very Happy")

Sex	Wave	SES Level		
		Low	Medium	High
Men	I	$59_{(360)}$	$62_{(330)}$	$65_{(307)}$
	III	$58_{(266)}$	$61_{(257)}$	$65_{(253)}$
Women	I	$50_{(430)}$	$62_{(464)}$	$72_{(288)}$
	III	$47_{(332)}$	$66_{(370)}$	$66_{(250)}$

		Wave I	Wave III
	N	2,179	1,728
	Not married	591	425
	NA	17	10
	Total N	2,787	2,163

3, we note that the proportion reporting that their marriages are "very happy," for both men and women and in all SES groups, is considerably higher than the proportion reporting that they are overall "very happy." This skewing of the distribution toward the "very happy" end, while noteworthy, is not surprising. Although sometimes difficult, it is possible for most people to terminate a marriage relationship if it is an unhappy one. Thus, a high degree of self-selection is probable, and many who were generally miserable in their marriages have most likely ended them. Therefore, those in our sample who do in fact report current unhappiness in their marriages probably represent those who are either having transitory difficulties or whose marriages are in the process of breaking up.

When we look at subgroups, we are struck with the fact that, on the whole, there are no marked differences in reports of marriage happiness between men and women and among SES groups. For men on both Waves I and III, there is only a very slight tendency for higher SES men to report happier marriages than lower SES men. For women on Wave I, there is a rather marked difference between low and high SES women in per cent reporting "very happy" marriages; but this difference persists only between the low and medium SES women in Wave III. The only clearly different group is the low SES women, who are consistently less likely to report "very happy" marriages than are men of the same SES level or men and women of higher SES.

Although these data are consistent with those previously reported (Blood and Wolfe, 1960; Gurin *et al.,* 1960; Bradburn and Caplovitz, 1965), the extent of the relationship between SES and marriage happiness is somewhat smaller than other investigators have found and is more clearly focused in the low level of happiness among lower SES women. Why the differences should be attenuated in our sample is not clear. Our samples are entirely from urban areas, while those of the previously mentioned studies had large segments of medium- and small-town repondents. If SES differences were more pronounced in these less-urbanized areas, it would account for the differences between our findings and those of the other studies. We do not, however, have any data that would allow us to test this hypothesis.

Turning now to the relationship between marriage happiness and overall ratings of happiness, we see in Table 9.6 that there is a very strong relationship between the two indicators of happiness for both men and women and at all levels of SES. Indeed, among those who report having "not too happy" marriages, no one reported being "very happy" on the overall ratings. Although the

Table 9.6 Marriage Happiness, Overall Happiness, Sex, and Socioeconomic Status, for Waves I and III (Per Cent "Very Happy" on Overall Happiness)

SES Level	Wave	Marriage Happiness		
		Very Happy	Pretty Happy	Not Too Happy
		Men		
Low	I	48 (213)	8 (135)	0 (11)
	III	42 (154)	10 (101)	0 (11)
Medium	I	52 (203)	14 (117)	0 (8)
	III	45 (157)	10 (95)	0 (5)
High	I	54 (202)	7 (98)	0 (7)
	III	45 (164)	14 (85)	0 (4)
		Women		
Low	I	43 (212)	14 (182)	3 (34)
	III	52 (155)	10 (156)	0 (21)
Medium	I	60 (290)	12 (155)	0 (19)
	III	60 (246)	10 (114)	0 (10)
High	I	64 (207)	16 (74)	0 (7)
	III	60 (164)	8 (78)	0 (8)

		Wave I	Wave III
	N	2,174	1,728
	NA	22	10
	Not married	591	425
	Total N	2,787	2,163

relationship is quite strong for both men and women, it is stronger for women (Wave I gamma = .78, Wave III gamma = .86) than for men (Wave I gamma = .72, Wave III gamma = .68). In fact, the relationship for women is so strong as to suggest that most women are equating their happiness in marriage with their overall happiness.

The demonstration that there is a strong positive relationship between marital and overall happiness, while interesting, does not advance our knowledge very far. A more intriguing question is whether marriage happiness is related to overall happiness equally through both positive and negative affect or whether it has a stronger relation to one dimension than to the other. When we look at the relationship between self-ratings of marriage happiness and our indices of positive and negative affect (Table 9.7), we see that for both men and women marriage happiness is related to both positive and negative affect, although of course in opposite directions. There is considerable variability in the strength of the relationship at different SES levels and between the two time periods. Except for high SES women, the relationship with marriage happiness is stronger for negative affect than for positive

Table 9.7 Coefficients of Association between Marriage Happiness and Affect Measures, by Sex and Socioeconomic Status, for Waves I and III (Gammas)

SES Level	Positive Affect		Negative Affect		Affect Balance Scale	
	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III
Men						
Low	$.15_{(351)}$	$.17_{(267)}$	$-.33_{(355)}$	$-.19_{(264)}$	$.31_{(349)}$	$.27_{(264)}$
Medium	$.07_{(326)}$	$.23_{(257)}$	$-.29_{(328)}$	$-.38_{(255)}$	$.25_{(326)}$	$.38_{(254)}$
High	$.06_{(306)}$	$.17_{(254)}$	$-.25_{(305)}$	$-.19_{(251)}$	$.22_{(305)}$	$.26_{(250)}$
Women						
Low	$.04_{(424)}$	$.19_{(332)}$	$-.36_{(426)}$	$-.31_{(327)}$	$.30_{(421)}$	$.34_{(325)}$
Medium	$.21_{(462)}$	$.23_{(371)}$	$-.29_{(464)}$	$-.25_{(369)}$	$.35_{(461)}$	$.32_{(367)}$
High	$.33_{(282)}$	$.27_{(251)}$	$-.30_{(285)}$	$-.25_{(250)}$	$.45_{(280)}$	$.34_{(250)}$

affect; and for a few groups, the association with positive affect on Wave I is insignificant.

DIMENSIONS OF MARRIAGE HAPPINESS[1]

Having noted that, on the whole, self-ratings of marriage happiness are related to positive and negative affect, we might ask the further question: Can marriage happiness itself be decomposed into two dimensions, one of positive and one of negative affect? In our pilot study we found that for the subsample of men that we interviewed intensively, a series of questions about marital arguments was related only to our Negative Affect Scale. These items were combined into a marital tensions index, which was found to be inversely related to the ratings of marriage happiness and also directly related to the Negative Affect Scale. The index, however, had no relation to the Positive Affect Scale. From this fact we concluded that marriage happiness was related only to negative affect.

Further reflection on the implications of the two affect measures suggested that we might have overlooked a dimension of positive satisfaction in marriage. Such a dimension might be uncorrelated with the tensions index, as our Positive Affect Scale is unrelated to the Negative Affect Scale, but still be related positively to ratings of marriage happiness and, of course, to the overall index of positive affect. Because the full implications of the two-dimension theory for marriage happiness were not sufficiently appreciated at the time of the first wave of interviewing, we did not develop a set of questions to investigate the possibility of a positive dimension in marriage happiness until the second wave. Thus, for our large sample, we have responses to a battery of questions on marriage satisfactions and tensions only for Wave III; while for the Detroit suburban sample, we have these measures on Waves II through IV.

The strategy for investigating positive and negative dimensions in marriage is somewhat different from that employed in looking at the positive and negative dimensions of affect. While it seemed clear that disagreements reflect tensions in marriage, it was not at all clear what would be the positive analogue of an argument. After some experimentation, we constructed an inventory of activities

[1] The material in this section is developed more fully in Orden and Bradburn (1968).

that husbands and wives might engage in together and that, on an a priori basis, were indicative of a positive relationship. We hypothesized that responses to these items would yield an index of the positive side of marriage and be uncorrelated with marital arguments. Some of the activities we asked about are of a social nature, such as going out together to a movie, visiting friends together, or entertaining friends at home. Other items are indicative of pleasant experiences that do not necessarily involve other people, such as spending an evening just chatting with each other, going for a walk or drive just for pleasure, or having a good laugh together. (For the full question, see Appendix 3, Wave III Q. F4.)

The negative side of marriage was measured in a manner similar to that used in the pilot study. Respondents were read a list of common topics that husbands and wives sometimes disagree about and were asked which ones caused differences of opinion or were problems during the past few weeks (Wave I Q. F6). Again it should be noted that for both sets of items, there was an attempt to get reports on actual behavior in the recent past.

The intercorrelations of the items in both the positive satisfactions battery and the tensions battery are reported in Table 9.8. These data are based on the total sample in Wave III. While the pattern is not quite as sharp as in the case of positive and negative feelings, there is a definite tendency for the items to fall into distinct clusters that have little relationship to one another. One cluster contains the disagreement items, which are positively intercorrelated but generally have a very small negative relationship with the satisfactions items. The other main cluster contains the items in the satisfactions battery, which are also positively intercorrelated. This cluster can be divided into two subclusters: one contains the items that involve high social contact, that is, visiting friends, entertaining friends, going out to a movie, and eating out in a restaurant; and the other contains the items that are more indicative of intimacy or companionship, such as taking a drive or going for a walk just for pleasure, having a good laugh together, doing something the other particularly appreciates, and spending an evening just chatting with one another. Even though there are positive intercorrelations among all the items in the satisfactions battery, the two subclusters have a "face-validity" interpretation that seems to justify

Table 9.8 Q-values of Association between Items in Marriage Relationship Indices, for Wave III[a]

Item	Marriage Sociability				Marriage Companionship					Marriage Tensions								
	Visited Friends Together	Went Out Together to Movie, Etc.	Entertained Friends	Ate Out in Restaurant	Spent Evening Chatting	Good Laugh	Drove or Walked for Pleasure	Did Something Other Appreciated	Affectionate	Times with Friends	Household Expenses	Being Tired	Being Away from Home	In-laws	Not Showing Love	Your (Husband's) Job	How to Spend Leisure	Irritating Personal Habits
Marriage sociability:																		
Visited friends together		.53	.63	.55	.22	.54	.46	.36	.56	-.20	-.05	-.05	-.19	-.25	-.07	-.13	-.18	.04
Went out together to movie, etc.	.56		.24	.63	.02	.65	.32	.28	.27	.13	-.01	-.03	.19	-.07	.01	.01	.10	.06
Entertained friends	.58	.35		.28	.15	.45	.27	.33	.48	-.03	.04	-.01	-.01	-.02	-.06	-.01	-.01	.01
Ate out in restaurant	.39	.69	.27		.08	.78	.34	.31	.62	-.03	-.20	-.11	.03	-.20	.01	.12	.10	.10
Marriage companionship:																		
Spent evening chatting	.39	.24	.21	.11		.55	.49	.47	.62	-.23	-.08	-.23	-.26	-.12	-.40	.19	-.21	-.09
Good laugh	.66	.70	.57	.50	.80		.61	.78	.86	-.15	-.38	-.17	-.37	.17	-.51	.26	-.03	-.14
Drove or walked for pleasure	.48	.39	.25	.36	.51	.69		.54	.54	.10	-.21	.14	-.06	-.19	.07	.03	-.07	-.03
Did something other appreciated	.34	.28	.37	.29	.74	.76	.47		.74	-.10	-.10	.12	-.32	-.50	-.65	1.00	.21	.15
Affectionate	.68	.60	.49	.53		.90	.68	.77		-.46							-.45	-.31
Marriage tensions—disagreement about:																		
Times with friends	-.19	-.04	.26	-.16	-.28	-.40	-.14	-.17	-.46		.58	.43	.74	.43	.54	.37	.71	.50
Household expenses	-.03	-.06	.00	-.07	-.23	-.34	-.04	-.21	-.38	.57		.36	.25	.43	.62	.44	.28	.40
Being tired	.09	-.05	-.03	-.01	-.12	-.11	-.06	.01	-.11	.47	.52		.36	.36	.43	.64	.39	.51
Being away from home	-.11	-.03	.00	-.02	-.39	-.19	-.28	-.20	-.38	.74	.39	.37		.57	.45	.54	.63	.25
In-laws	.06	.19	.17	.11	.28	-.12	-.20	.02	-.09	.61	.54	.36	.46		.68	.42	.44	.53
Not showing love	-.15	-.18	.12	-.10	-.56	-.50	-.37	-.43	-.69	.71	.49	.59	.55	.55		.35	.59	.67
Your (husband's) job	-.03	.01	.03	-.07	-.10	.11	-.15	-.04	-.34	.32	.49	.50	.59	.41	.45		.35	.18
How to spend leisure	-.11	.06	.03	.06	-.24	-.36	-.19	-.22	-.39	.66	.51	.51	.51	.54	.56	.26		.53
Irritating personal habits	-.06	-.22	.03	-.03	-.16	-.28	-.28	-.09	-.27	.51	.47	.48	.22	.42	.66	.26	.52	

[a] Q-values for men (N = 781) are above the diagonal; Q-values for women (N = 957) are below the diagonal.

the construction of two separate indices—a marriage sociability index and a marriage companionship index. These two indices, of course, are correlated with each other and have a low correlation with the cluster of disagreement items in the bottom half of the table. The latter items, which are those in the argument battery, were combined into a single marital tensions index.

When we look at the interrelationship of the three indices and the relationship of each to overall marriage happiness (Table 9.9), we see that they form a structure similar to that of positive and negative affect and overall ratings of happiness. Although the two subclusters of items concerning positive satisfactions are positively correlated, each has a nearly zero relationship with the negative dimension—tensions. The marriage companionship index and the marital tensions index are related to the marriage happiness ratings in about the same degree, although of course in different directions; while the marriage sociability index has a somewhat lower but still positive relationship with marriage happiness. The overall model, then, of two dimensions that are independent of each other but both correlated with an overall feeling of well-being is also a fruitful conceptual scheme to apply to marriage happiness.

DIMENSIONS OF MARRIAGE HAPPINESS AND THE AFFECT MEASURES

Does this parallelism in structure hold up when we mesh the dimensions of marriage happiness with those of overall ratings of

Table 9.9 Coefficients of Association among Measures of Marriage Adjustment, for Wave III (Gammas)[a]

Measure	Companionship	Sociability	Tensions	Happiness
Companionship		.34	−.08	.44
Sociability	.37		−.01	.20
Tensions	−.15	.02		−.36
Happiness	.40	.26	−.41	

[a] Gammas for men (N = 781) are above the diagonal; gammas for women (N = 957) are below the diagonal.

Source: Susan R. Orden and Norman M. Bradburn, "Dimensions of Marriage Happiness," *American Journal of Sociology*, 1968, **73** (May), 723. Permission for use granted by the publishers, The University of Chicago Press. Copyright 1968 by The University of Chicago.

happiness? If the overall conception is a fruitful one, we would expect that the marital tensions index would be associated only with the Negative Affect Scale, as indeed was the case in the pilot study, while our two marriage satisfactions indices—marriage sociability and companionship—would be related only to the Positive Affect Scale.

Looking first at marital tensions, we see in Table 9.10 that our expectations are borne out. On both Waves I and III we see that there is a positive relationship between marital tensions and negative affect (Wave I gamma = .37 for men and .43 for women; Wave III gamma = .39 for men and .39 for women), while the relationship with positive affect is nearly zero. These relationships are of the same order of magnitude for both men and women. As we might anticipate from the positive correlation with negative affect and the nearly zero correlation with positive affect, marital tensions show a negative but lower relationship with the Affect Balance Scale. We might note also that for both men and women there is a significant negative relationship between marriage tensions and the overall ratings of happiness.

There were no consistent sex differences in marital tensions. On Wave I, 43 per cent of the men and 41 per cent of the women were high in marital tensions; while on Wave III a slight shift changed the proportions to 36 per cent for the men and 38 per cent for the women. There were also no consistent SES differences. If we look

Table 9.10 Coefficients of Association between Marital Tensions and Indicators of Psychological Well-Being, by Sex, for Waves I and III (Gammas)

Marital Tensions and:	Sex			
	Men		Women	
	Wave I	Wave III	Wave I	Wave III
Overall happiness	−.25	−.29	−.37	−.38
Positive affect	.10	.04	.00	.02
Negative affect	.37	.39	.43	.39
Affect Balance Scale	−.16	−.21	−.32	−.26
N	998	781	1,182	957

at the relationship between marital tensions and negative affect within each sex and SES group, we see that it is a very stable relationship and that there are no evident interactions. Table 9.11 presents the average ridit values for negative affect for both Waves I and III, separately for men and women at each SES level. We see that there is a significant difference in the probability of being high in negative affect between those who are low and those who are high in marriage tensions. The probability associated with each tensions level is constant across the two waves. Women tend to be higher on negative affect within each level of marital tensions, although the sex difference does not always reach the level of statistical significance. We thus conclude that the relationship between marital tensions and negative affect is moderately strong and remarkably stable across both time and levels of social structure and for both sexes.

Table 9.11 Marital Tensions and Negative Affect, by Sex and Socioeconomic Status, for Waves I and III (Average Ridits)

SES Level	Wave I Marital Tensions		Wave III Marital Tensions	
	Low	High	Low	High
Men				
Low	.39 (216)	* .53^a(145)	.41 (171)	* .56 (93)
Medium	.35^a(174)	* .52^a(157)	.37 (159)	* .54 (96)
High	.38^a(174)	* .56 (134)	.40 (159)	* .57 (92)
Women				
Low	.45 (252)	* .65^a(177)	.45 (199)	* .64 (128)
Medium	.43^a(280)	* .65^a(186)	.45 (235)	* .63 (134)
High	.46^a(164)	* .60 (121)	.45 (156)	* .62 (94)
	N	2,180	N	1,716
	NA	16	NA	22
	Not married	591	Not married	425
	Total N	2,787	Total N	2,163

^{a} Sex difference significant at these SES levels.

Because the items for the companionship and sociability indices were not included on Wave I, we shall examine the relationship between these indices and positive affect only for Wave III. When we look at marriage companionship and the indicators of psychological well-being (Table 9.12), we see that, as expected, the relation with marriage companionship is positive for positive affect and slightly negative, but insignificant, for negative affect. Because of this one-sided association, we find that marriage companionship is positively related to the Affect Balance Scale, but at a lower level than its relation to positive affect. Marriage compånionship also shows a positive relationship with overall happiness, but it is lower than the opposite association between tensions and overall happiness.

In contrast to the lack of differences by sex for marital tensions, we find that men tend to be higher in marriage companionship (53 per cent of the men, compared with 46 per cent of the women) but that women show a higher association between marriage companionship and positive affect (gamma = .33 for women and .22 for men). While there are no consistent differences among SES groups in marriage companionship, we saw in Chapter 6 that there are significant SES differences in positive affect. Table 9.13 gives the average ridit values for positive affect among those who are low and high in marriage companionship at each SES level, separately for men and women. With the exception of the high SES men, for whom the relationship is not statistically significant, those who are

Table 9.12 Coefficients of Association between Marriage Companionship and Indicators of Psychological Well-Being, by Sex, for Wave III (Gammas)

Marriage Companionship and:	Sex	
	Men	Women
Overall happiness	.20	.28
Positive affect	.22	.33
Negative affect	− .03	− .12
Affect Balance Scale	.17	.29
N	772	944

high in marriage companionship are significantly more likely to be high in positive affect than are those who are low in marriage companionship. The SES differences in positive affect, however, tend to persist even within the low and high marriage companionship groups, with higher SES increasing the likelihood of higher positive affect. The exception to this general trend occurs among men who are high in marriage companionship. Here the high SES men are lower in positive affect than one would expect on the basis of their SES and marriage companionship scores. It should be noted, at least among those who have low marital companionship, that the SES difference is due primarily to the lower companionship score of the low SES people, rather than to a consistent trend across all SES levels.

The marriage sociability index shows a pattern of relationships similar to that exhibited by the marriage companionship index,

Table 9.13 Marriage Companionship and Positive Affect, by Sex and Socioeconomic Status, for Wave III (Average Ridits)

| SES Level | Marriage Companionship | |
	Low	High
	Men	
Low	.35 (130) *	.48 (129)
Medium	.45 (109) *	.57 (144)
High	.47 (120) *	.51 (132)
	Women	
Low	.35 (194) *	.53 (126)
Medium	.48 (167) *	.58 (196)
High	.50 (137) *	.65 (108) *

N	1,692	
NA	46	
Not married	425	
Total N	2,163	

although at a somewhat lower level (Table 9.14). For both men and women, marriage sociability has a positive but low association with positive affect and a zero relationship with negative affect. Again, there is a moderate positive relationship with both the Affect Balance Scale and the overall happiness measure. In contrast to the other two indices, marriage sociability shows a positive relationship with SES but no sex differences except at the low SES level, where men are higher in sociability than women. Forty-seven per cent of the low SES men, compared with 34 per cent of the low SES women, are high in marriage sociability. At the high SES level, 61 per cent of the men, compared with 64 per cent of the women, are high in marriage sociability.

When we look at the relationship between marriage sociability and positive affect within each of the SES groups (Table 9.15), we find that while those who are high in marriage sociability are higher in positive affect, the differences are significant only for women. Controlling for marriage sociability also reduces the relationship between SES and positive affect. This relationship remains only among women who are high in marriage sociability. Thus, not only are women who are high in SES more likely to be high in marriage sociability, as might be expected, but they are higher in positive affect than are those of low SES who have the same amount of marriage sociability.

In summary, we find that the two dimensions of positive and

Table 9.14 Coefficients of Association between Marriage Sociability and Indicators of Psychological Well-Being, by Sex, for Wave III (Gammas)

Marriage Sociability and:	Sex	
	Men	Women
Overall happiness	.14	.18
Positive affect	.16	.25
Negative affect	− .02	.00
Affect Balance Scale	.12	.16
N	777	947

negative affect we observed in our analysis of the overall sense of well-being are paralleled in self-reports of adjustment in marriage. The dimensions of marriage happiness are not so neatly conceptualized in terms of positive and negative affect, but they do appear to reflect common experiences in marriage that are related to the overall affect balance. Again we find substantial independence among the dimensions of marriage happiness. The data point to the necessity of considering experiences that contribute to both sides of the affect balance equation in order to understand fully the differences in marriage happiness. The rather extensive analysis that would be necessary to isolate those factors contributing to the positive and negative sides of marriage happiness would take us far beyong the scope of this volume. Such exploration has begun, however, and is reported in separate papers (Orden and Bradburn, 1968, 1969).

Table 9.15 Marriage Sociability and Positive Affect, by Sex and Socioeconomic Status, for Wave III (Average Ridits)

SES Level	Marriage Sociability	
	Low	High
Men		
Low	.39 (140)	.44 (122)
Medium	.45 (105)	.51 (149)
High	.45 (99)	.51 (154)
Women		
Low	.38 (214) *	.49 (109)
Medium	.48 (144) *	.57 (217)
High	.42 (88) *	.62 (159)
		*

N	1,700
NA	38
Not married	425
Total N	2,163

CHANGES IN REPORTS OF MARRIAGE HAPPINESS

As in previous chapters, we were able to take advantage of the panel data to test the observed cross-sectional relationships for changes over time. Thus, we can look at the changes in marriage happiness and concomitant changes in our affect measures in order to gain a fuller understanding of the interrelations between role adjustment and the overall sense of well-being. The analytic strategy will be that pursued in earlier chapters.

The first question naturally concerns the degree of stability in our respondents' ratings of their marriage happiness. Since we have already shown that there is considerable stability in various measures of well-being, we are not surprised to find a similar degree of stability for marriage happiness, as Table 9.16 shows. In fact, the stability is somewhat higher than for the overall happiness ratings. The gammas on marriage happiness between the Wave I and Wave III ratings are .79 for men and .80 for women, compared with .74 for men and .71 for women on the overall happiness question. As we pointed out earlier in this chapter, the fact that people can terminate an unhappy marriage more easily than they can change an unhappy life leads to marriage happiness ratings that are skewed toward the "very happy" end of the distribution. Similar reasoning would lead us to expect a higher degree of stability in the measures than would be the case for the overall happiness ratings. We see

Table 9.16 Stability over Time of Marriage Happiness Ratings, by Sex (Gammas)

Time Period	Marriage Happiness Rating	
	Men	Women
Wave I–III	.79 (754)	.80 (932)
Wave I–II	.88 (178)	.82 (217)
Wave II–III	.84 (160)	.94 (197)
Wave III–IV	.83 (161)	.93 (203)

similar degrees of stability for both men and women between Waves I and II, II and III, and III and IV.

As can be seen in Table 9.17, changes in marriage happiness ratings are associated with changes in overall happiness ratings between Waves I and III for both men and women. This table presents the data on changes in the two happiness ratings in the format suggested by Goodman (1962) for the study of correlated change in two attributes. We have dichotomized the happiness ratings into those who report being "very happy" and those who report being less than "very happy." For the most part, of course, the latter are those who rated themselves as "pretty happy." For both men and women there is a highly significant chi-square indicating a substantial degree of dependence between the changes in the two measures.

Table 9.17 Changes in Marriage and Overall Happiness Ratings, by Sex, Wave I to Wave III[a]

Marriage Happiness	Overall Happiness					
	$VH_1 \rightarrow VH_3$	$\overline{VH}_1 \rightarrow \overline{VH}_3$	$\overline{VH}_1 \rightarrow VH_3$	$\overline{VH}_1 \rightarrow \overline{VH}_3$	Total	
			Men[b]			
$VH_1 \rightarrow VH_3$	144	61	42	126	373	
$VH_1 \rightarrow \overline{VH}_3$	9	22	6	56	93	$\chi^2 = 23.96; p < .001;$
$\overline{VH}_1 \rightarrow VH_3$	5	1	14	71	91	3 degrees of freedom
$\overline{VH}_1 \rightarrow \overline{VH}_3$	4	9	11	173	197	
Total	162	93	73	426	754	
			Women[c]			
$VH_1 \rightarrow VH_3$	201	77	75	102	455	
$VH_1 \rightarrow \overline{VH}_3$	4	36	7	70	117	$\chi^2 = 34.00; p < .001;$
$\overline{VH}_1 \rightarrow VH_3$	15	11	25	50	101	3 degrees of freedom
$\overline{VH}_1 \rightarrow \overline{VH}_3$	5	16	15	223	259	
Total	225	140	122	445	932	

[a] VH = "Very Happy," $\overline{VH}$ = less than "Very Happy"; subscript 1 = Wave I, subscript 3 = Wave III.
[b] $\chi^2 = 222.9$; $p < .01$; 9 degrees of freedom.
[c] $\chi^2 = 358.8$; $p < .01$; 9 degrees of freedom.

The significance of the overall association, however, may be largely due to the stability of those who had the same ratings at both times. More important from our point of view are the two middle rows of each half of the table that indicate the proportion of people who moved between reporting that they had "very happy" marriages and reporting that they had less than "very happy" marriages. Computing chi-squares on just these two sets of rows yields chi-squares of 23.96 for men and 34.00 for women, both of which are highly significant. Thus, not only is there an overall association between changes in the two measures, but there is also a substantial association between the critical changes from being "very happy" to being less than "very happy" and vice versa.

Granted that changes in marriage happiness ratings are associated with changes in overall avowed happiness, can we say anything about the way in which these changes come about? Specifically, are they more likely to occur through changes in negative affect than through changes in positive affect? Because of the relatively small proportion of people changing their self-reports of marriage happiness between Waves I and III, we have combined the changes into those who increased, decreased, or remained the same in their ratings of marriage happiness between the two time periods, regardless of the degree of change. As in the previous analysis of changes in the affect scores, we have used the average ridit values of the positive and negative affect change scores as our measures of differential change.

In Table 9.18 we see that the differences in the probability of a change in positive or negative affect scores between the two time periods has only a modest relationship to changes in self-ratings of marriage happiness. For both men and women and for both affect scores, the probability of change is in the expected direction, although in some cases the differences are quite small. Thus, those who increased in marriage happiness were also likely to increase in positive affect and less likely to increase in negative affect, while those who decreased in marriage happiness were likely to do the reverse.

There are two interesting things about Table 9.18 that are consistent with the general line of findings reported earlier in this chapter. The first is that the differences in probability of change

associated with changes in reported marriage happiness are greater for women than for men on both affect change measures. Such a difference is consistent with the observed stronger relationship between marital and overall happiness for women.

The second interesting fact is that for both men and women, the probability of change in affect scores with changes in ratings of marriage happiness is greater for negative than for positive affect. In our pilot study we reported that changes in marital tensions were related only to negative affect, and we concluded from this that marriage adjustment was associated with overall happiness only through its relation to the presence or absence of negative affect. In the data reported earlier in this chapter, it appeared that this was an oversimplified statement and that in fact marriage adjustment measures had analogues to the positive affect dimensions. While

Table 9.18 Changes in Marriage Happiness and Changes in Positive and Negative Affect, by Sex, Wave I to Wave III (Average Ridits of Change Scores)

Sex	Marriage Happiness		
	Decreased	Remained the Same	Increased
	Positive Affect		
Men	.50 (103)	.51 (533)	.53 (98)
Women	.47 (127)	.50 (668)	.54 (111)
	N	1,640	
	NA	98	
	Not married	425	
	Total N	2,163	
	Negative Affect		
Men	.52 (100)	.50 (536)	.46 (100)
Women	.57 (129)	.49 (679)	.39 (111) *
	N	1,655	
	NA	83	
	Not married	425	
	Total N	2,163	

our data clearly support the importance of the two dimensions of marriage happiness and show that marriage happiness is related on a cross-sectional basis to both positive and negative affect, the difference in the change scores suggests that movement in the ratings of marriage happiness may have a closer connection, although not an exclusive one, with changes in negative affect and particularly in its analogue, marital tensions, than with changes in positive affect and its analogues, marriage companionship and sociability.

To summarize, we have seen that changes in self-ratings of marriage happiness do have a mild association with changes in positive and negative affect, just as they did with changes in overall ratings of happiness. While these differences are nowhere very strong, there is some indication that they are stronger for women than for men and that, for both men and women, they are greater for negative than for positive affect. The largest difference occurs between women who increased and women who decreased in marriage happiness. Women who rated their marriages as happier on Wave III than they did on Wave I had a two to one chance of decreasing their negative affect scores compared with women who rated their marriages as less happy on Wave III than on Wave I.

CHANGES IN MARRIAGE TENSIONS, COMPANIONSHIP, AND SOCIABILITY

In order to test one implication of the findings that changes in marriage happiness are more strongly related to changes in negative affect, we can compare the association between changes in marriage tensions and in negative affect with the association between changes in marriage companionship and sociability and in positive affect. Table 9.19 presents average ridit values for the negative affect change scores between Waves I and III, separately for men and women. On the whole, there is a positive relation between increases in marital tensions and in negative affect, although men who went from low to high tensions were no more likely to increase in negative affect than were men who remained with low tensions. As with changes in marriage happiness, we see that the relationship is somewhat stronger for women than for men. The odds are seven to three that a woman who changed from low to high marital tensions would have increased her reports of negative affect compared

with a woman who changed in the reverse direction. For a man who changed from low to high marital tensions, the odds are four to three that he would have increased his negative affect compared with a man who changed from high to low.

This differential association between changes in marriage tensions and in negative affect does not mean that women were any more likely to change their actual level of reported tensions: 19 per cent of the men and 20 per cent of the women increased in reported tensions between the two time periods, while 30 per cent of the men and 28 per cent of the women decreased in their reported tensions level. The fact that the proportion of individuals who reported less tensions during Wave III exceeds the proportion reporting more tensions is consistent with the fact that the level of

Table 9.19 Changes in Marital Tensions and Changes in Negative Affect, by Sex, Wave I to Wave III (Average Ridits for Negative Affect Change Score)

Wave I Marital Tensions	Wave III Marital Tensions		
	Low	Medium	High
	Men		
Low	.51 (153)	.60 (50)	.50 (37)
Medium	.48 (72)	.52 (54)	.54 (58)
High	.43 (67)	.41 (81) *	.48 (177)
	Women		
Low	.51 (189)	.57 (63)	.57 (59)
Medium	.49 (86)	.47 (67)	.51 (71)
High	.37 (78) *	.40 (93) *	.50 (222) *

N	1,677
NA	61
Not married	425
Total N	2,163

reported negative affect generally declined between the two time periods, as shown in Chapter 5.

Because the marriage sociability and companionship items were not put into the interview schedule until Wave II, we can only compare the changes in these measures and in positive affect from Wave II to Wave III. The reduced number of respondents who were interviewed on both Waves II and III necessitates our combining levels of change, so we can compare only those who increased, decreased, or remained the same and must ignore the degree of change. When we make these comparisons in Table 9.20, separately for men and women, we see that there is no consistent association between changes in reported level of marriage companionship and sociability and changes in positive affect.

The comparable figures for changes in marital tensions and in negative affect on Waves II and III are shown in the last panel of Table 9.20. Here we see results generally similar to those for changes from Wave I to Wave III for the total sample, although there are substantial negative affect changes only for men who decreased and only for women who increased in marital tensions.

On the basis of the generally low relationship between changes in marriage happiness and changes in positive affect, we expected to find a substantially lower relationship between changes in marriage companionship and sociability and in positive affect than we found between changes in marital tensions and in negative affect. The total absence of any association, however, is somewhat puzzling. Since the association between the two satisfactions indices and positive affect is lower than that between the tensions index and negative affect, our measurement is probably not as good for the positive side of marriage as it is for the negative side. We suspect that there are some unmeasured aspects of positive satisfactions that would be more strongly related to positive affect than our two measures are and that might have changed between the two waves of interviewing. As we know from Chapter 8, one of the important elements associated with positive affect is having novel experiences. While to some extent our marriage sociability items do pick up elements of new and varied experiences, we have no direct measure of the degree to which there have been new experiences that would be relevant to satisfaction in marriage.

It would appear, then, that the effects of variations in marriage happiness on a person's overall sense of well-being are primarily felt through changes in the feelings of negative affect and that these arise out of changes in the level of marriage tensions. While there

Table 9.20 Changes in Marriage Companionship, Sociability, and Tensions and Changes in Affect Measures, by Sex, Wave II to Wave III

| Sex | Marriage Relationship | | |
	Decreased	Remained the Same	Increased
	Marriage Companionship (Average Ridits for Positive Affect Change)		
Men	.43 (25)	.47 (73)	.48 (54)
Women	.50 (41)	.44 (89)	.57 (62)
	N	344	
	NA	36	
	Not married	44	
	Total N	424	
	Marriage Sociability (Average Ridits for Positive Affect Change)		
Men	.47 (17)	.48 (38)	.46 (103)
Women	.48 (17)	.50 (71)	.50 (110)
	N	356	
	NA	24	
	Not married	44	
	Total N	424	
	Marital Tensions (Average Ridits for Negative Affect Change)		
Men	.46 (58)	.56 (70)	.55 (40)
Women	.53 (73)	.52 (89)	.61 (44)
	N	374	
	NA	6	
	Not married	44	
	Total N	424	

is evidence of some change in positive affect associated with changes in marriage happiness, this change is not related to either our marriage sociability or marriage companionship indices. We suspect, however, that we may have failed to measure some types of change that would covary with positive affect over time.

Thus, our primary conclusion is that the connection between role adjustment in marriage and a person's sense of psychological well-being is primarily through the relation of the two with the negative affect dimension. The covariation over time of marriage tensions and negative affect would thus appear to be the critical area for understanding how the level of adjustment in this role is linked to the overall level of psychological well-being. At this point in our knowledge, it would be a mistake to consider either changes in marriage tensions or in negative affect as a cause of changes in the other. The multiplicity of forces that are at work influencing the level of tensions in a marriage and the level of negative affect are so great that it is unlikely for there to be any simple cause-and-effect relationship. We must content ourselves for the present with being able to show somewhat more clearly the level and manner of association between satisfactions and dissatisfactions in important life roles and the overall sense of psychological well-being, which is our primary focus of interest.

SUMMARY

In this chapter we have seen that not being married is strongly associated with a decreased sense of psychological well-being, particularly for those who have been married but are separated, divorced, or widowed. In contrast to the findings that marriage happiness has a greater association with overall happiness for women, we presented evidence, consistent with that found by other investigators, that not being married has a greater negative impact on men. We advanced two hypothetical explanations for these differences: one viewed them as arising essentially from a differential selective process in which men who have a lower sense of well-being or some significant psychological impairment select themselves out of the marriage relationship; the other viewed them as coming from a greater negative reaction to the unmarried state on the part of men. Partial evidence for the reactive theory was found,

although it was suggested that both processes might be at work.

When we examined the relationship between satisfactions and dissatisfactions in the marriage role and psychological well-being, we found, as have others, that there is an association between overall measures of psychological well-being and measures of marriage happiness. Paralleling our two dimensions of positive and negative affect, we found one set of experiences in marriage that was related only to negative affect and another set that was related only to positive affect. These two sets of marriage experiences had little relation to one another. The data from different waves of the study indicated that changes in marriage happiness and changes in our measures of psychological well-being are associated, but the data were less clear in showing a relationship between changes in the positive and negative experiences in marriage and changes in positive and negative affect. Some evidence pointed to the possibility that dissatisfaction in marriage, as seen in the number of arguments between spouses, may have a greater impact on overall psychological well-being than do those experiences that lead to satisfaction in marriage. For almost all measures, the relation between marriage happiness and overall well-being was stronger for women than for men.

10

Adjustment in Major Roles II: Work

INTRODUCTION

Traditionally, in both myth and reality, work has been a major factor in the life styles of Americans. Work has been a principal role in the organization of men's lives and is becoming a major, if still not dominant, role in women's lives. Even though the standard work week has been reduced over the last fifty years and many people are working less, work continues to occupy a major portion of most men's waking hours. Many individuals hold more than one job; and many others put in considerable overtime, whether or not they are compensated for the extra work.

Equally important is the fact that the nature of many jobs has changed. The shortening of the working day has been accompanied by better physical conditions in which to work and by qualitative changes in the demands on workers. For example, many jobs require less physical effort today. There are often, however, greater time pressures for completing jobs and consequently a potential for greater psychological drain on the individual. While there is some thought today about the feasibility of phasing out many jobs through automation and cybernation, it does not seem likely that in the immediate future many men will be permanently out of the labor force. Therefore, it seems well worthwhile to document the relation of the work role to an individual's psychological well-being.

We can feel safe in making the assumption that any role occupying so much of an individual's time will have some effect on overall

C. EDWARD NOLL WAS THE AUTHOR OF THIS CHAPTER.

well-being. There are, however, several reasons for suspecting that work is not equally important in the lives of all employed individuals. First, there is great variation in the extent to which preparation for work roles influences the life style of the role incumbent. For instance, becoming a physician involves a long process of education and socialization into the new role. On the other hand, becoming a laborer or brick tender has little significance for the life style of the individual beyond the fact that he will keep regular hours, be physically tired, and gain a paycheck at the end of a certain time period. Since there is greater salience of the work role in the life style of the doctor than in the life style of the laborer, we would expect the importance of the work role on life and happiness to be greater (or at least different) for the doctor than for the laborer.

The differential importance of work is also suggested by recent research that has broken with the common assumption of work as universally the most important area of a man's life. For example, Dubin (1956) has suggested that in America leisure roles may be more salient and significant than the work role in the life interests and satisfactions of many individuals. On an international level, Inkeles (1960) and Faunce and Smucker (1966) have attempted to show that the importance of work-related values for status assignment are not universals in human social life but occur in western, urban, industrial societies. The implication from the research is that these values may not be held by all men even in the United States.

A further reason for thinking that work does not have equal importance to all but has various meanings comes from studies showing that orientation to and satisfaction with work varies with status position. Weiss and Kahn (1960) found differences in what various occupations define as "work." Nancy Morse (1953), in a study of low-prestige, white-collar, predominantly female workers, differentiated between "intrinsic" or personal satisfaction derived from the job and sources of satisfaction outside or "extrinsic" to the worker. In a subsequent work (Morse and Weiss, 1955), differences were found between middle-class men, who gained a sense of accomplishment and purpose from working (intrinsic satisfaction), and working-class men, for whom work served as something to keep them from just lying around the house (extrinsic satisfac-

tion). Herzberg *et al.* (1959) have shown that men respond to different aspects of their work role, although the findings are based on data from white-collar workers of both high and low prestige. They found that some individuals respond to aspects of the job that are dissatisfiers, while others respond mostly to those aspects that are associated with positive satisfactions. In a more recent study of blue-collar, industrial workers, Kornhauser (1965) notes that the direct economic consequences of one's job appear to play a primary role in determining the effect of work on other aspects of one's life.

All of these studies, while individually dealing with only a segment of the work world, suggest strongly that a worker's position in the prestige or status hierarchy influences his relationship to his job and that hierarchical position is important in explaining the effect of work on the individual's reaction to his work role. Thus, we would expect that occupational status would be related to a person's sense of psychological well-being. As with other areas of our study, we anticipate that some aspects of work will be related to our measure of positive affect, while others will be related to negative affect.

In tracing the relationship between work-role adjustment and the measures of psychological well-being, we shall deal with a number of aspects of the work role. First, we shall consider the effects of having a work role, i.e., being employed compared to being unemployed. Second, we shall examine how holding different kinds of jobs and the attributes and attitudes connected with these jobs are associated with psychological well-being. Finally, we shall look at the worker's relation to his job and the association of that relation to our measures of well-being.

UNEMPLOYMENT AND PSYCHOLOGICAL WELL–BEING

The cultural significance that holding a job has for a male in contemporary American society would lead us to expect that being unemployed would be a major cause of unhappiness. While the immediate impact of unemployment is the loss of income, the consequences eventually go further to affect the individual's self-esteem, his social relationships, and especially his position within the family. Even though work may have little positive significance in

the lives of some men, not having a job makes it difficult to have a pleasant home, to provide adequately for the needs of one's family, and to maintain self-esteem.

When a husband loses his job, the burden of supporting the family often falls on his wife or older children. With the loss of his position as chief wage earner, the worker may also feel that his position as head of the household is threatened; and he may become hostile toward his family. In addition to the disruption of intra-family social relations, the worker and his wife are often cut off from social contacts outside the family, either because friends feel sorry for them and are not sure how to act toward them or because the friends do not want to obligate them for reciprocal entertaining. Wilcock and Franke (1963) sum it up well when they say that the worker not only loses income and activity, but also his "institutional base in the economic and social system."

In order to investigate the relation between employment status and psychological well-being, we divided our respondents into three major groups: male chief wage earners, female chief wage earners (primarily single women), and wives of chief wage earners. The first two groups are reporting on their own employment status, while the wives of chief wage earners are referring to their husbands' work status. We shall examine not only the impact of unemployment on the individual involved, but also the effect on the spouse.

The relation between employment status and avowed happiness for Waves I and III is shown in Table 10.1. Unemployment clearly has an impact on the happiness of both male and female chief wage earners (CWE's). While nine out of ten employed male CWE's are "very happy" or "pretty happy," only six out of ten who are unemployed feel "very" or "pretty happy." The effect of unemployment is just as clear-cut for women reporting on their own jobs, with approximately eight out of ten of the employed saying they are "very" or "pretty happy," compared to slightly over four out of ten of the unemployed. This table also shows that husband's employment is related to the happiness of the wife, although wives of unemployed men are not as unhappy as the unemployed men themselves. Thus, being an unemployed CWE oneself or being married to one decreases the chances of being happy.

Table 10.1 Employment Status and Avowed Happiness, by Sex, for Waves I and III

Employment Status	Per Cent "Very Happy"		Per Cent "Pretty Happy"		Per Cent "Not Too Happy"		Per Cent		Total N	
	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III
Men										
Employed chief wage earner (CWE)	33	30	58	63	9	7	100	100	1,101	846
Unemployed or laid off CWE	14	15	45	50	41	35	100	100	83	26
Other (retired, permanently disabled, not CWE)	19	12	60	44	21	44	100	100	57	41
Women										
Employed CWE	17	11	62	77	21	12	100	100	219	165
Unemployed CWE	7	–a	37	–a	56	–a	100	–a	27	9
Wife of employed CWE	39	39	54	56	7	5	100	100	1,061	859
Wife of unemployed CWE	27	[15]b	55	[69]	18	[15]	100	.99c	49	13
Others (welfare, ADC, not CWE or wife of CWE)	16	19	53	56	31	25	100	100	141	142
								N	2,738	2,101
								NA	49	62
								Total N	2,787	2,163

a Too few cases for reliable percentaging.
b Brackets indicate per cents based on less than twenty cases.
c Not 100 per cent because of rounding.

The two effects of unemployment mentioned most often are a loss of income and a general state of anxiety and worry. In Chapter 7 we presented data indicating a relationship between anxiety, worry, and the Negative Affect Scale. On the other hand, in Chapter 6 we showed that income is more strongly related to the Positive Affect Scale. Further, sociability, which is also influenced by unemployment, is related to income and to positive affect. Therefore, we would expect unemployment to be related to both dimensions of affect. Table 10.2 shows that this is the case.

For male CWE's, there is a strong positive relation between the level of positive affect and employment status. The difference in negative affect is significant for Wave I but not for Wave III. For both unemployed female CWE's and the wives of unemployed CWE's, the probability of reporting high positive affect is lower than for their employed counterparts; but there is not a consistent difference on the Negative Affect Scale. The differences in Table 10.2 are only significant, with two exceptions, for Wave I; but they are consistently in the same direction for Wave III. Thus, these findings not only suggest that anxiety and worry are associated with unemployment, but also that the loss of income and disturbances in the individual's social life resulting from unemployment are significant enough to have repercussions on the Positive Affect Scale.

If the wife of an unemployed worker is employed, then the impact of the loss of income is lessened. Further, the income derived from the working wife would tend to alleviate the social ills of the unemployed worker's situation, except for the impact of unemployment on his own self-esteem and the social relations that he participates in. In the urban poverty milieu, a man out of work with a working wife is not uncommon, and he may still have a normal life and not suffer too much. But an unemployed man in a middle-class setting is certainly less than a full man. Thus, we would expect that the negative dimension of affect would remain pretty much unchanged by the employment of the wife and that the increased income would help raise the positive dimension. Table 10.3 presents data allowing a test of this hypothesis.

Among unemployed men, of which we have very few in our sample, the impact of the wife's employment appears to be in the direction that we predicted. That is, an unemployed man is more likely to have high positive affect if his wife works than if she does

Table 10.2 Employment Status and Affect Measures, by Sex, for Waves I and III (Average Ridits)

Employment Status	Positive Affect		Negative Affect		Affect Balance Scale	
	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III
Men						
Employed chief wage earner (CWE)	.46 (1,091) *	.47 (839) *	.45 (1,099) *	.46 (837)	.50 (1,088) *	.48 (831)
Unemployed or laid off CWE	.31 (83)	.28 (27)	.55 (83)	.49 (27)	.37 (83)	.37 (27)
Other (retired, permanently disabled, not CWE)	.51 (54)	.31 (40)	.60 (56)	.62 (39)	.45 (54)	.33 (38)
Women						
Employed CWE	.44 (217)	.45 (163)	.52 (217) *	.59 (164)	.44 (216) *	.38 (161)
Unemployed CWE	.31 (27)	[.39]a (9)	.71 (27)	[.55] (9)	.23 (27)	[.38] (9)
Wife of employed CWE	.50 (1,501) *	.51 (848) *	.53 (1,056)	.52 (850)	.48 (1,047) *	.46 (840)
Wife of unemployed CWE	.31 (49)	[.32] (13)	.51 (50)	[.49] (13)	.38 (48)	[.38] (13)
Other (welfare, ADC. not CWE or wife of CWE)	.35 (137)	.35 (136)	.59 (138)	.57 (141)	.33 (135)	.37 (136)

a Brackets indicate ridits based on less than twenty cases.

Table 10.3 Employment Status of Respondent and Spouse and Affect Measures, by Sex, for Waves I and III (Average Ridits)

Employment Status		Positive Affect		Negative Affect		Affect Balance Scale	
Respondent	Spouse	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III
		Men					
Employed	Employed	.49 (317)	.49 (247)	.44 (316)	.46 (244)	.53 (315)	.49 (243)
Employed	Unemployed	.45 (606)	.48 (470)	.44 (611)	.45 (470)	.50 (605)	.49 (466)
Unemployed	Employed	[.34]ª (13)	–ᵇ (5)	[.53] (13)	–ᵇ (5)	[.42] (13)	–ᵇ (5)
Unemployed	Unemployed	.28 (31) *	[.21] (10) *	.55 (31)	[.43] (10)	.34 (31) *	[.32] (10)
		Women					
Employed	Employed	.52 (363) *	.51 (282)	.47 (365)	.49 (281)	.53 (363) *	.48 (278)
Employed	Unemployed	[.33] (16)	–ᵇ (6)	[.58] (17)	–ᵇ (6)	[.35] (16)	–ᵇ (6)
Unemployed	Employed	.48 (688) *	.51 (566)	.56 (691)	.54 (569)	.45 (684)	.45 (562)
Unemployed	Unemployed	.30 (33)	–ᵇ (7)	.47 (33)	–ᵇ (7)	.40 (32)	–ᵇ (7)

ª Brackets indicate ridits based on less than twenty cases.
ᵇ Too few cases to be reliable.

not, but he is no more likely to have less negative affect. Thus, there is a resulting increase in the Affect Balance Scale (ABS) when the wife is employed. We might note that this difference is not due simply to the wife's working, since among employed men there is little difference in ABS regardless of the employment status of their wives. Thus, it seems likely that the differences in psychological well-being that show up among unemployed men are real differences.

Looking at the women in Table 10.3, the effect of the husband's unemployment on the wife's psychological well-being is much more complicated, or so it seems at first glance. If the wife is employed, the husband's being unemployed is related to both positive and negative affect, though stronger on the positive than on the negative dimension. The major difference between an employed woman whose husband is unemployed and an unemployed woman whose husband is unemployed is on the dimension of negative affect, with the former more likely to be high on negative feelings than the latter. Thus, the data support the conclusion of common sense that for a man the best state is being employed, regardless of the employment status of his wife, while for a woman the best state is being employed and having an employed husband. An unemployed man is higher in positive feelings if his wife is employed, as we predicted above; while a woman with an unemployed husband is lower in negative feelings if she has no job herself.

There is one further method of establishing the effect of unemployment described above. We can look at the effect of a change in employment status among CWE's between Wave I and Wave III (Table 10.4). We see that those employed at the time of Wave I and also employed at the time of Wave III are no more likely than the sample as a whole to have changed on the three affect scales. The same is true of those unemployed at both times and of those unemployed at Wave I who were employed at Wave III. However, among those employed during Wave I but unemployed by the time of Wave III, there is less likelihood of having improved on the positive dimension but no difference on the negative dimension, and as a result, less likelihood of improvement in ABS. With full realization that these findings are derived from very small case bases, we would hypothesize that unemployment first has a major

impact on positive affect, through income loss and disruption of social relationships, and then causes an increase in negative feelings through worry, anxiety, and lowered self-esteem.

SOCIAL STATUS OF THE JOB

We shall now turn to an investigation of the relationship between the social status of a person's job, which we shall call "job status," and his feelings of psychological well-being. We are concerned both

Table 10.4 Changes in Employment Status and Changes in Affect Scales, Chief Wage Earners Only, Wave I to Wave III (Average Ridits for Change Scores)

Wave I Employment Status	Wave III Employment Status		
	Employed	Unemployed	
	Positive Affect Change		
Employed	.50 (945)	[.31][a] (14)	
Unemployed	.49 (40)	.50 (21)	
	N	1,020	
	NA	18	
	Total N	1,038	
	Negative Affect Change		
Employed	.50 (948)	[.47] (14)	
Unemployed	.45 (39)	.49 (21)	
	N	1,022	
	NA	16	
	Total N	1,038	
	Affect Balance Scale Change		
Employed	.49 (931)	[.36] (14)	
Unemployed	.53 (39)	.48 (21)	
	N	1,005	
	NA	33	
	Total N	1,038	

[a] Brackets indicate ridits based on less than twenty cases.

with the effect of holding a job of a given social status and with the relation to well-being of factors that differentially accrue to the individuals in different status jobs. Such factors include not only income but pay increases, promotions (both those received in the past and expected in the future), and how the jobholder feels others view his job.

There is considerable social science literature indicating that industrial societies have a common occupational structure that has important consequences for the social relations among individuals. Inkeles and Rossi (1956) have shown that there is remarkable consistency in the prestige ratings accorded similar occupations in different countries; Hodge, Siegel, and Rossi (1964) noted that these prestige ratings are invariant across time, even though there has been considerable shift in the number of individuals holding higher level positions. Inkeles (1960) has shown that the prestige-ordering of occupations is similar and that the structuring of perceptions, attitudes, and values associated with this occupational structure is common to a number of western, industrial countries. Those in higher status jobs gain better pay and more security, as well as greater deference or respect and more freedom.

It is clear from such studies that variation in the social status of jobs involves more than just differences in monetary rewards; it also involves differences in less tangible rewards to the role incumbent, e.g., respect, freedom, and autonomy. In comparing engineers in private corporations and in academic circles, Marsh and Stafford (1967) argue that the "attitudes toward work" may be substitute commodities for monetary rewards. To some extent, professional values compensate for the lower income of those in academic circles compared to those with similar jobs in private corporations. Thus, we would expect that workers with different attitudes toward their jobs would differ in the extent to which they gain satisfactions from their work. Further, we hypothesize that those who hold higher status jobs would be able to gain more from their jobs in terms of positive and negative affect simply because they have greater affectivity. They not only have a greater stake in their jobs, but they are also more sensitive to their environment through education and previous experiences and thus are able to gain more from the work sphere.

In order to test these ideas, we must find a measure of job status that is valid across the lines dividing jobs by content. The Duncan prestige scale (Duncan, 1961) provides such a measure, although it is not without problems for our purposes. While it clearly distinguishes between a professional and a skilled laborer, middle-status jobs are somewhat blurred. For example, many clerical and sales jobs have approximately the same level of prestige or social standing as those of craftsman and foreman; but these jobs may, in fact, belong to "two different worlds"—the white-collar and the blue-collar world. Therefore, introducing a distinction between white-collar and blue-collar jobs, in addition to the differentiation by prestige level, would seem to be more meaningful for our purposes than using either the prestige dimension or the white-collar–blue-collar dichotomy by itself. We can construct a combined job-status measure using the U. S. Census classification of occupations for the white-collar–blue-collar distinction and Duncan's decile prestige scale for the social status dimension.

Table 10.5 shows how individuals in our sample are distributed on the Duncan prestige scale when their jobs are placed in the

Table 10.5 Occupational Prestige and Census Listing of Occupations, Chief Wage Earners Only (Per Cent)

Census Category	Occupational Prestige										Total	
	High				Medium			Low			Per Cent	N
	10	9	8	7	6	5	4	3	2	1		
White collar:												
Professional	6	33	24	26	5	5					99[a]	237
Manager		12	29	21	22	8	8				100	128
Clerk			30	7	50	1	12				100	149
Sales			2	46	5	13	35				101[a]	63
Blue collar:												
Crafts				3	10	25	22	18	23		101[a]	300
Operator					1	1	10	42	40	5	99[a]	153
Household						7	8	4	46	36	101[a]	118
Labor						2			31	66	99[a]	64
Total												1,212

[a] Not 100 per cent because of rounding.

census occupation categories. For purposes of analysis, a four-fold typology was constructed from this table. The four categories are: (1) white-collar workers with high prestige; (2) white-collar workers with medium and low prestige; (3) blue-collar workers with high and medium prestige; and (4) blue-collar workers with low prestige. As the table indicates, the highest prestige levels among blue-collar workers overlap the lowest prestige levels among white-collar workers.

Using this typology, we can look at the distribution of our measures of psychological well-being by job status. Turning first to avowed happiness, Table 10.6 presents data on the per cent saying they were "very happy" on Waves I and III for those in each of the four job categories, separately for men and women.

There are two important findings in this table: (1) slight but consistent differences exist between men in higher prestige positions compared to men in lower prestige positions, regardless of whether they are white-collar or blue-collar workers; and (2) differences in happiness derived from job status occur between men and women. The first finding appears to justify distinguishing between prestige levels within the white- and blue-collar worlds. The foremen and craftsmen of the blue-collar world are in a slightly more gratifying position than are the lower prestige, white-collar workers. This difference shows up in the per cent "very happy" and in positive affect. The lower prestige, white-collar group is made up in large part of low-level managers and clerical workers, who have relatively boring and unchallenging jobs, pay that is not too good, and less occupational prestige in many instances than individuals in the higher prestige, blue-collar group. Workers in the latter group (the skilled labor force) are very much in demand. They are similar to the high-prestige, white-collar professions in that there are apprenticeship and training programs and the skilled workers pay some price in terms of having to defer gratification until later in their careers. It is possible, then, that the greater investment in job training pays off in psychological returns, regardless of occupational level.

Unfortunately, it is impossible to tell if the same kind of pattern is true for women since few of them hold high-prestige, blue-collar positions. Few female CWE's describe themselves as "very happy,"

Table 10.6 Job Status and Affect Measures, by Sex, Chief Wage Earners Only, for Waves I and III

Job Status	Per Cent "Very Happy"		Positive Affect (Average Ridits)		Negative Affect (Average Ridits)	
	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III
Men						
White collar:						
High prestige	35 (333)	31 (275)	.53 (332)*	.52 (273)	.46 (333)	.45 (273)
Medium and low prestige	28 (176)	28 (123)	.45 (176)	.44 (121)	.47 (175)	.50 (121)
Blue collar:						
High and medium prestige	35 (239)	34 (170)	.46 (237)*	.46 (171)	.42 (238)	.44 (170)
Low prestige	29 (424)	28 (298)	.37 (417)*	.42 (296)*	.47 (423)	.47 (294)
Women						
White collar:						
High prestige	18 (76)	11 (54)	.51 (75)	.49 (54)	.56 (76)	.62 (54)
Medium and low prestige	15 (72)	12 (57)	.46 (72)	.44 (54)	.50 (72)	.56 (56)
Blue collar:						
High and medium prestige	[10]a (10)	–b (4)	[.33] (10)	–b (4)	[.51] (10)	–b (4)
Low prestige	16 (89)	11 (53)	.36 (88)*	.40 (53)	.56 (87)	.57 (52)

a Brackets indicate per cents and ridits based on less than twenty cases.
b Too few cases to be reliable.

and having a higher job status does not increase that likelihood. The reader should remember, however, that the women under discussion are chief wage earners and, almost without exception, single women.

Among both men and women, Table 10.6 shows that one's position on the job-status hierarchy clearly is related to the level of positive affect but not of negative affect. For men, there are significant differences in positive affect between job-status levels. Although the size of the cells for women are too small for significant differences, the relationship appears nearly the same. The differences for women between job-status groups on negative affect show no pattern, as in the case of men. However, women are more likely than men to be high on negative feelings, a finding that has been pointed out earlier.

This table seems to establish that one is more likely to be happy if in a higher prestige occupation and that differences in happiness can be explained primarily from increased positive affect. The one possible exception to this is the difference between men who hold lower prestige, white-collar positions and those who hold higher prestige, blue-collar jobs. This difference seems to result from the latter having about the same or slightly more positive feelings and slightly less negative feelings.

This finding is made clearer by looking at the partial gammas. Prestige has a higher net association with happiness when type of job is controlled (gamma = +.19) than does the white-collar–blue-collar dichotomy when prestige is controlled (gamma = −.04). At the medium- and low-prestige level, in fact, one is happier if a blue-collar than if a white-collar worker. The gammas also indicate the stronger relationship of prestige with positive feelings (gamma = +.23) than with negative feelings (gamma = −.08). The only partial association between prestige and negative feelings occurs among blue-collar workers (gamma = −.15).

While high-prestige men, regardless of whether they are white collar or blue collar, are more likely to be happy, it would follow from the literature mentioned earlier in this chapter that there are different reasons why these two groups are happier. We would expect that income or extrinsic rewards would be the basis for happiness among those in the blue-collar world; while the intrinsic rewards, such as respect for one's position and job advancement

opportunities, would be the basis of happiness in the white-collar world.

We can test this expectation by looking at the relation between job status, income, and positive affect, as shown in Table 10.7. The hypothesis is apparently correct. We have limited the table to men because of the small number of women, and to positive affect since no relation was found between job-status level and negative affect. The higher the income for the two groups of blue-collar workers, the greater the probability of being high on the Positive Affect Scale. The pattern for white-collar workers is inconsistent. Note also that the differences between the job-status levels are nearly gone at the highest income level, while they are much stronger at the lower income levels and significant in most instances. This finding, coupled with the fact that the differences in positive affect are not as great among white-collar workers of different income levels, would seem to support the explanation that there are alternative means of gratification, such as prestige and autonomy, for high-status workers, while the main reward for low-status workers is money. We would suggest that high-prestige, white-collar men possess greater sensitivity that allows this use of alternative gratifications. The basis of this sensitivity is probably in higher educational attainment and greater diversity of life experiences.

Another dimension of possible importance to happiness derived from work is mobility, the willingness to take advantage of better jobs in different localities or of opportunities within the work world to find the best job for oneself. Eighty-five per cent of those in high-prestige, white-collar jobs feel that they are now holding the best job that they ever had, while only 71 per cent of those in low-prestige, white-collar jobs, 78 per cent of those in high-prestige, blue-collar jobs, and 67 per cent of those in low-prestige, blue-collar jobs feel this way. Table 10.8 shows clearly that for men there is a significant relation between feeling that you are now holding the best job you ever had and the likelihood of being high on positive affect. For women, the differences in positive affect are in the same direction but not significant. For both men and women, the direction of differences in negative affect is consistent; that is, holding the best job you ever had decreases the likelihood of being high on negative affect. However, the differences are not statistically significant.

Table 10.7 Job Status and Positive Affect, by Income, Male Chief Wage Earners Only, for Waves I and III (Average Ridits)

Job Status	Income					
	Less than $7,000		$7,000–$9,999		$10,000 or More	
	Wave I	Wave III	Wave I	Wave III	Wave I	Wave III
White collar:						
High prestige	.49 (78)	.52 (33)	.55 (110)	.55 (84)	.53 (139)	.51 (153)
Medium and low prestige	.47 (90)	.41 (53)	.43 (54)	.50 (34)	.50 (29)	.44 (32)
Blue collar:						
High and medium prestige	.42 (92)	.43 (54)	.45 (95)	.49 (62)	.56 (50)	.49 (46)*
Low prestige	.35 (295)*	.41 (185)	.41 (72)	.41 (60)*	.52 (39)	.47 (36)*

	Wave I	Wave III
N	1,143	832
NA	54	52
Total N	1,197	884

PSYCHOLOGICAL DIMENSIONS OF JOB STATUS

While much has been done to measure the prestige of occupations, and, more recently, to determine what it is that leads to an occupation being given prestige, there is little information on what prestige means to an individual. We mentioned earlier that income, autonomy, and potential for mobility were likely payoffs from a higher job status. Also, there appears to be less likelihood of reaching a peak of job growth early in one's work life cycle. While deferred gratification may be a necessary requisite for higher job status, one gains continued avenues for growth through both intrinsic and extrinsic rewards from the job. Thus, in a steel mill, a man of thirty-five may find himself unchallenged, with no hope for change or growth within the mill hierarchy because he lacks the educational prerequisites. At the same time, he cannot bring himself to move to a different line of work, such as becoming an insurance salesman, because he is either unwilling or unable to take an initially lower-paying job. Either he is not willing to live without the money he now makes because it is the only personal payoff from work that he has, or he is unable to do so because of his commitments in family and living expenses. The higher one goes in job status, the greater the likelihood of being able to find agreeable work situations without a great monetary sacrifice.

In the following analysis, we shall look at two measures that reflect the differences in both tangible and intangible payoffs for

Table 10.8 Best Job and Affect Measures, by Sex, Chief Wage Earners Only, for Waves I and III (Average Ridits)

Current Job Is Best Job	Positive Affect		Negative Affect	
	Wave I	Wave III	Wave I	Wave III
Men				
Yes	.48 (810) *	.49 (604) *	.44 (812)	.45 (604)
No, had better one	.39 (262)	.43 (200)	.49 (268)	.50 (200)
Women				
Yes	.45 (145)	.48 (108)	.52 (146)	.61 (111)
No, had better one	.43 (62)	.45 (43)	.55 (62)	.69 (42)

jobs with differing status: one is a measure of past achievement and expectations of future success, the other a subjective evaluation of the job's prestige. The first involves indicators of how well the respondent is doing in his job; the second measures the respondent's beliefs about how others evaluate his job itself, independently of how well he is performing on the job.

We turn first to an index that indicates an element of hope for the future and some success in the past. We constructed an index of job advancement from the following four items in the questionnaire: (1) "Is the job you now have the best job you've ever had or have you had a better one?"; (2) "During the past year have you received a raise in pay?"; (3) "During the past year have you received a promotion?"; and (4) "What are your chances for advancement—*good, fair,* or *poor?*" (for exact wording, see Appendix 3, Wave I Q. W9, W10, W11, and W13). One point each was assigned for the present job being the best job, having received a raise, having received a promotion, and feeling chances for advancement were fair; two points were given for feeling chances for advancement were good. These scores were then summed for each individual, yielding an index with a range from 0 to 5. The relationship of this index to the Positive and Negative Affect Scales is shown in Table 10.9.

The job advancement index appears to account for most of the variance in positive affect associated with job status that we saw in Table 10.6. When job advancement level is controlled, the difference among job-status levels is reduced to nearly zero. Only the low-prestige, blue-collar category continues to have consistently low positive affect, even for the few men with very high job advancement.

It is clear then that a worker's feelings of advancement in his occupational career—holding what he feels is his best job, having received a raise or a promotion in the last year, and evaluating as good the chances for promotion in the future—are associated with a greater sense of well-being through increased level of positive affect. The one modification of this is among low-prestige, blue-collar workers. For these men, job advancement has a stronger association with negative than with positive affect. The reason for this is not clear, but it is logical to infer that it results from the fact

that these workers have less involvement in work and less responsibility on the job than do higher status jobholders. For men at this low job level, success on the job may seem to reduce their worries; but it does not increase much their joys or feelings of competence.

Now we turn from how the individual sees his job performance to how he thinks others view his job. The exact question asked was

Table 10.9 Job Status, Job Advancement Index, and Affect Measures, Male Chief Wage Earners Only, for Wave I (Average Ridits)

Job Status	Job Advancement Index				
	Very Low	Low	Medium	High	Very High
	Positive Affect				
White collar:					
High prestige	.36 (25)	.45 (34)	.51 (72)	.56 (107)	.60 (65) *
Medium and low prestige	.39 (25)	.43 (29)	.46 (30)	.48 (38)	.61 (20) *
Blue collar:					
High and medium prestige	.35 (28)	.45 (50)	.50 (52)	.50 (57)	.57 (27) *
Low prestige	.34 (77)	.36 (108)	.40 (77)	.44 (66)	[.40][a] (11)
	N	998			
	NA	199			
	Total N	1,197			
	Negative Affect				
White collar:					
High prestige	.47 (25)	.42 (35)	.43 (72)	.49 (107)	.46 (65)
Medium and low prestige	.50 (25)	.46 (29)	.44 (30)	.45 (37)	.50 (20)
Blue collar:					
High and medium prestige	.43 (27)	.46 (51)	.42 (53)	.39 (57)	.43 (27)
Low prestige	.53 (81)	.44 (109)	.44 (78)	.42 (67)	[.37] (11)
	N	1,006			
	NA	191			
	Total N	1,197			

[a] Brackets indicate ridits based on less than twenty cases.

as follows: "Do the people you know think of (you/your hus-
band) as having a *good job,* an *average job,* or *not too good a
job?*" (Wave I Q. W14). Answers to this question should reflect
the subjective evaluation of prestige. When a person judges his own
job, he may employ different reference points from those used in
evaluating a list of occupations, as is done in studies of occupa-
tional prestige (see, for example, Hodge, Siegel, and Rossi, 1964).
Some may evaluate their jobs in terms of a reference group of
people with similar backgrounds ("People think that this is a good
or poor job for a person like me"), while others may use more
absolute criteria ("People think that this is a good or poor job for
anyone"). In either case, however, we would expect people who
believe that society has a positive view of their job to receive more
gratification from having that job; and this fact should reflect itself
in a greater sense of well-being.

The relationship between how one feels others see his job and
the two affect scales is shown in Table 10.10. There is a consistent
difference in the levels of both positive and negative affect between
the persons who feel they have what others think is a good job and
those who feel others see their job as average or not too good.
However, the only differences that reach levels of statistical signifi-
cance are for positive affect. The differences between job-status
groups is the same among men who feel others see them as having
good jobs as we found in Table 10.6.

In summary, then, the data support the belief that the evalua-
tions—whether the individual's own view of his chances for the
future based on past experience, his relating the current job to the
past jobs he has held, or how he thinks others view his job—all
have a similar impact. The higher the occupational prestige of the
individual, the more likely he is to have positive evaluations and
the higher the level of positive feelings he experiences. There are
relatively few differences in negative affect except at the lowest
job-status level, where not having a positive outlook for advance-
ment is related to a higher level of negative feelings.

Compared to these less concrete sources of satisfaction and
happiness, a "real" component of work—one's income—had the
greatest impact on positive affect among those at the lowest job-
status level (Table 10.7). At a higher level, other rewards are sub-
stituted for income; thus, the effect of income on positive feelings

is slight. Two implications can be drawn from the data: (1) income is not the major source of satisfaction among high-prestige job-holders but is among low; and (2) income, rather than less tangible rewards, is the only work-related source of well-being among low-prestige jobholders.

Table 10.10 Others' View of Respondent's Job and Affect Measures, by Job Status, Male Chief Wage Earners Only, for Waves I and III (Average Ridits)

Job Status	Others' View of Job			
	Average or Not Too Good	Good	Average or Not Too Good	Good
	Wave I		Wave III	
	Positive Affect			
White collar:				
High prestige	.37 (56)	* .56 (264)	.44 (51)	.55 (214)
Medium and low prestige	.41 (68)	.50 (90)	.35 (36)	.50 (73)
Blue collar:				
High and medium prestige	.38 (63)	* .52 (160)	.44 (41)	.48 (120)
Low prestige	.36 (175)	.42 (171) *	.36 (122)	* .49 (148)
N	1,047		805	
NA	150		79	
Total N	1,197		884	
	Negative Affect			
White collar:				
High prestige	.51 (56)	.45 (265)	.50 (51)	.44 (214)
Medium and low prestige	.47 (68)	.47 (89)	.52 (37)	.49 (73)
Blue collar:				
High and medium prestige	.43 (63)	.42 (161)	.47 (40)	.43 (120)
Low prestige	.48 (178)	.43 (174)	.48 (121)	.44 (147)
N	1,054		803	
NA	143		81	
Total N	1,197		884	

ORIENTATION TO THE WORK ROLE

Having examined the associations that unemployment and holding a high position or low position in the job hierarchy have to measures of psychological well-being, we can now consider the relation between an individual's orientation to his present job and our affect measures. Specifically, we are interested in work satisfaction and feelings of inadequacy on the job.

As most of the literature on work satisfaction reports, the American worker, regardless of his job status, for one reason or another is very likely to be satisfied. While there is sometimes a slight decline in satisfaction as one moves down the prestige hierarchy, most studies report that approximately 80 per cent or more of the workers are satisfied with their present jobs (Morse and Weiss, 1955; Herzberg, Mausner, Peterson, and Capwell, 1957; Blauner, 1960). Our question here is whether more satisfaction is associated with a higher rating of overall happiness.

To measure work satisfaction, we constructed an index based on responses to a question about satisfaction with various items associated with work. Three of these items were as follows: "How satisfied are you with . . . Your earnings? The kind of work you do? Taking all things together, how do you feel about your (work/business) as a whole?" (Wave I Q. W12a, b, and d). Responses were coded as "very satisfied," "somewhat satisfied," "somewhat dissatisfied," or "very dissatisfied." Because of the skewed distributions, a reply of "very satisfied" was given a score of 1 and any other answer was given a score of 0 for each of the three items. The scores were then summed for each individual, which resulted in an index ranging from 0 to 3, with 3 being very high satisfaction, 2 being high satisfaction, 1 medium satisfaction, and 0 low satisfaction. The intercorrelations of the three items are shown in Table 10.11.

Table 10.12 shows the relationship between work satisfaction and avowed happiness. While the difference between the gammas for Wave I and Wave III is considerable for some of the groups, there is a consistently strong association between work satisfaction and overall happiness. It is somewhat surprising that the relationship is stronger among male CWE's than among female CWE's. The differences in the strength of gammas for women between

Table 10.11 Coefficients of Association between Items in the Work Satisfaction Index, for Waves I and III (Gammas)[a]

Satisfaction with:	Satisfaction with:		
	Earnings	Kind of Work	Work or Business As a Whole
Earnings		$+ .41_{(2,422)}$	$+ .70_{(2,428)}$
Kind of work	$+ .58_{(1,924)}$		$+ .85_{(2,421)}$
Work or business as a whole	$+ .72_{(1,925)}$	$+ .84_{(1,925)}$	

[a] Gammas for Wave I are above the diagonal; gammas for Wave III are below the diagonal.

Table 10.12 Coefficients of Association between Work Satisfaction Index and Avowed Happiness, by Sex and Job Status, for Waves I and III (Gammas)

Job Status	Gamma	
	Wave I	Wave III
	Men	
All chief wage earners (CWE's)	$.43_{(1,102)}$	$.41_{(846)}$
White collar:		
High prestige	$.38_{(327)}$	$.39_{(271)}$
Medium and low prestige	$.41_{(163)}$	$.53_{(117)}$
Blue collar:		
High and medium prestige	$.49_{(229)}$	$.43_{(165)}$
Low prestige	$.46_{(363)}$	$.40_{(279)}$
	Women	
All CWE's	$.28_{(219)}$	$.44_{(165)}$
White collar	$.25_{(139)}$	$.36_{(108)}$
Blue collar	$.35_{(75)}$	$.63_{(50)}$
N	1,321	1,011
NA	130	51
Total N	1,451	1,062

Waves I and III indicate that the relationship does not hold up as well as for men. We had expected that work satisfaction would be highly correlated with happiness for female CWE's, who are mostly single women, in the belief that work was a substitute for marriage and thus very important. This is apparently not the case.

We had also expected a higher level of association between work satisfaction and happiness for persons with higher status jobs than those with lower status jobs. The data, however, do not support this hypothesis. If anything, it appears that the association is slightly stronger among people with lower job statuses, particularly for women.

Table 10.13 presents ridits showing the probability of being high on the two affect scales at different levels of work satisfaction, controlling for the job-status level of the jobholder. Somewhat the same pattern that we found earlier in this chapter is repeated in this table; that is, both the higher prestige white-collar and blue-collar men are likely to be high on positive feelings if they are higher on work satisfaction, while this is not true for lower prestige men. Work satisfaction is inversely related to negative affect at all levels of job status, but only reaches the level of statistical significance for low prestige, blue-collar workers.

The fact that work satisfaction is related to positive affect only for the higher prestige men in both white- and blue-collar jobs raises some interesting questions about the determinants of work satisfaction at different job levels. In the discussion of positive affect in Chapter 8, it was noted that varied experiences were an important correlate of positive affect. It seems likely that those men who have the higher prestige jobs—the professional and managerial white-collar jobs and the foremen and skilled craftsmen among the blue-collar workers—would be in a position to engage in more varied activities during the day and have greater opportunities to experience at least moderate levels of novelty. If such opportunities are also associated with work satisfaction at these job levels, then we could account for the differential association of work satisfaction and positive affect for differing job levels. More detailed investigation of the determinants of work satisfaction for different jobs is being pursued in a separate analysis (Laslett, 1968).

In order to check on the strength of these findings, Table 10.14 presents data relating the changes in the level of work satisfaction to changes in the affect measures between Wave I and Wave III. The scores on the work satisfaction index were algebraically summed and classified as having increased, remained the same, or decreased between the two waves. We see that there is no relationship over time between changes in work satisfaction and changes in either positive or negative affect.

Table 10.13 Work Satisfaction Index and Affect Measures, Male Chief Wage Earners Only, for Wave I (Average Ridits)

Job Status	Work Satisfaction			
	Low	Medium	High	Very High
	Positive Affect			
White collar:				
High prestige	.44 (80)	.53 (77)	.57 (109)	.57 (60) *
Medium and low prestige	.43 (59)	.49 (31)	.50 (51)	.46 (22)
Blue collar:				
High and medium prestige	.39 (62)	.42 (51)	.52 (65)	.56 (48) *
Low prestige	.36 (138)	.40 (63)	.46 (79)	.35 (77)
N	1,072			
NA	125			
Total N	1,197			
	Negative Affect			
White collar:				
High prestige	.50 (80)	.48 (77)	.44 (110)	.41 (60)
Medium and low prestige	.52 (59)	.46 (31)	.44 (50)	.39 (22)
Blue collar:				
High and medium prestige	.46 (63)	.47 (52)	.44 (64)	.32 (48)
Low prestige	.52 (140)	.40 (64)	.43 (81)	.41 (79) *
N	1,080			
NA	117			
Total N	1,197			

It would seem at first glance that the relationships we found in the cross-sectional data were more spurious than real. However, as was pointed out in Chapter 8 in discussing the relation of sociability and novelty to change in positive affect, it appears that the degree of association must be fairly strong in the cross-sectional data for the relation to show in change data. In fact, the relationships that we found in the cross-sectional data relating work satisfaction and the affect measures were not that strong in one direction; the range of the gammas was from $+ .24$ to $- .46$ for Wave I and from $+ .46$ to $- .28$ for Wave III for the four job-status levels.

Thus, rather than accepting the explanation of spuriousness of the earlier findings, we would suggest that the work satisfaction index is a summary measure reflecting a general, but not terribly strong, relation to positive and negative affect as described above. We would conclude that satisfaction with one's job has a stronger relationship to negative than to positive affect because the first relation held up in the change data. Further, we would suggest that there is a status differential in determinants of work satisfaction, resulting in some interesting differences among job-status levels in the relationship between work satisfaction and positive affect. Such differences, however, do not appear to influence the relationship between work satisfaction and negative affect.

In addition to the work satisfaction question, respondents were asked about their performance on the job during the past few weeks—that is, whether they felt they were not doing as good a job as they would like to, and how often they felt that way (for exact

Table 10.14 Changes in Work Satisfaction and Changes in Affect Measures, Male Chief Wage Earners Only, Wave I to Wave III (Average Ridits for Change Scores)

Work Satisfaction	Positive Affect Change	Negative Affect Change
Decreased	.51 (221)	.48 (222)
Remained the same	.50 (379)	.50 (384)
Increased	.49 (197)	.50 (195)

wording, see Appendix 3, Wave I Q. W16). The inadequacy measure is a three-point index: individuals who never felt inadequate in their work role during the past few weeks have a score of 1; those who felt inadequate only once or twice have a score of 2; and those who often felt inadequate have a score of 3.

Feeling inadequate in one's job is primarily related to negative affect. In Table 10.15, we show the gamma coefficients between feelings of inadequacy and the two affect measures. While it is clear from the table that inadequacy for men has a stronger relationship to negative than to positive feelings, the pattern is unclear for women.

The strength of the relationship to negative affect for men is borne out in the change data presented in Table 10.16. The relation between decreased inadequacy and probability of having decreased in negative affect is consistent across job-status levels.

These data confirm the findings of the pilot study (Bradburn and Caplovitz, 1965), which showed clearly that feelings of inadequacy in job performance were related to overall happiness measures only through the medium of negative affect. Similarly, we

Table 10.15 Feelings of Inadequacy and Affect Measures, by Sex, Chief Wage Earners Only, for Waves I and III (Average Ridits)

Inadequacy Score	Positive Affect		Negative Affect	
	Wave I	Wave III	Wave I	Wave III
Men				
1	.43 (717)	.46 (564)	.42 (722)	.50 (562)
2	.51 (207)	.51 (170)	.50 (210)	.56 (172)
3	.47 (153)	.48 (93)	.58 (153)	.64 (91)
Women				
1	.39 (137)	.45 (107)	.49 (137)	.62 (109)
2	.54 (44)	.41 (36)	.62 (44)	.63 (35)
3	.53 (30)	[.54][a] (19)	.54 (30)	[.71] (19)

[a] Brackets indicate ridits based on less than twenty cases.

have found that feelings of inadequacy in other roles, such as those of spouse and parent, are also related only to negative affect. Since negative affect appears to be a major indicator of the kinds of symptoms that are present in cases diagnosed as "poor mental health" or as one of the psychoneuroses, these specifications of some important correlates of negative affect should take us some way toward understanding the dynamics of mental illness.

Both of the items that we have examined concerning an individual's orientation to his job—work satisfaction and inadequacy—showed a stronger relation to negative affect. Work satisfaction also showed some relation to positive affect, but not as strongly or as consistently at all job-status levels as was true of negative affect; and we notice that there is some reason to expect that higher status jobs might have components that would provide novel opportunities, which are related to positive affect.

It would seem logical to expect less job-status differences in

Table 10.16 Changes in Feelings of Inadequacy and Changes in Negative Affect, Male Chief Wage Earners Only, Wave I to Wave III (Average Ridits for Change Scores)

Job Status	Feelings of Inadequacy		
	Increased	Remained the Same	Decreased
All male CWE's	.55 (111)	.50 (507)	.43 (157) *
White collar:			
High prestige	.53 (41)	.51 (155)	.46 (55)
Medium and low prestige	[.53][a] (17)	.55 (69)	.36 (22)
Blue collar:			
High and medium prestige	.61 (27)	.49 (102)	.39 (28) *
Low prestige	.54 (25)	.49 (171)	.45 (51)

N	762
NA on job	12
NA on inadequacy	13
Total N	788

[a] Brackets indicate ridits based on less than twenty cases.

items concerned with orientation to a job than in earlier measures that were more closely tied to prestige. As was noted, most workers are satisfied with their jobs; and feeling inadequate would lead to anxiety and worry and thus higher negative affect at any level of the status hierarchy.

SUMMARY

In this chapter we have looked at the relationship between various aspects of the work role and psychological well-being. We found, as the literature on work would lead us to expect, that some items associated with work are related to the Positive Affect Scale, while others are related to the Negative Affect Scale. The data indicated that being unemployed for a man is related to both affect dimensions. The suggested explanation was that being unemployed disrupts the social life of the individual and brings greater worry and anxiety connected with the loss of a regular income. Disrupted social life would lead to a lowering of positive affect, while anxiety and worry would lead to a higher level of negative affect. A comparison of unemployed CWE's and wives of unemployed CWE's clearly showed that the greater impact is on the unemployed person rather than on his wife. Her husband's unemployment has an impact on a wife's happiness through positive affect.

Further, we found that job status in itself is responsible for some differences in positive affect. More important, however, was the fact that income, promotions, and general chances for advancement as seen by the individual, as well as his perception of how others view his job, have a greater association with positive affect for those in higher status positions.

Work satisfaction and feeling inadequate in one's work role were two work-connected attitudes that had a consistent relationship with negative affect for individuals at all job-status levels. There was a slight relationship between work satisfaction and positive affect for those in higher positions; but from the change data, it appeared that work satisfaction was more strongly related to negative than to positive affect.

The reason for the status differentials that were found in many instances is likely to derive from the broader scope of life experiences and opportunities as well as from the more interesting job

activities of those in higher positions. Men in higher status jobs appear to have not only higher positive affect but also are more likely to have a more positive orientation toward the work role and thus to have lower negative affect. Those in lower status positions, on the other hand, have less of a stake in the world of work and thus are unlikely to reap much payoff on the positive dimension, and, at best, can hope for a lessening of negative affect. The fact that a number of work items are related to positive as well as to negative affect would seem to support the view that work continues to be a major element in the social life of contemporary Americans.

11

Social Trauma: The Assassination of President Kennedy

INTRODUCTION

Although man is a social animal, the range of social relationships that have important meaning for his well-being is fairly limited. Even for a man with a large kin group and a wide network of friends, the number of people whose actions can have important direct consequences for his feelings of well-being probably would not exceed several hundred at most. It is certainly true that reactions of many more people than one's immediate family, friends, and acquaintances can have important consequences for one's psychological state; but these consequences tend to be the product of actions that are felt only through the intermediary effects of one's immediate social network. Thus, it is generally assumed that the important variables in the study of psychological well-being are those dealing with others in the immediate life-space of the individual. When such an approach is pursued to its logical conclusion, it naturally leads to the clinical study of individual lives in which the uniqueness of each individual's life-space becomes important in understanding the emotional experiences of that individual. In our study we have pursued a more generalized strategy by examining differences in reported feelings among groups who appear to

have similar types of experiences. We have concentrated on experiences that are fairly close to the individual, such as those involving his marriage, his job, and his more immediate social activities.

Events in the world beyond an individual's immediate experience do sometimes have an important impact on his emotions. Flights of astronauts into outer space, outbreaks of hostility between countries in some far-off part of the world, weddings of famous persons —such events are capable of producing excitement, anxiety, pleasure, and many other emotions in people who have no personal knowledge of the events or of the persons involved. Many people believe that the development of mass communication, particularly the advent of television, has increased the frequency and intensity of people's reactions to such events remote from their everyday lives. We cannot answer here to what extent this might be true, but the spread of television has undoubtedly enabled larger and larger numbers of people to be drawn more immediately into events that are of sufficient prominence to be given extensive television coverage. Through this medium, hundreds of thousands, at times millions, of individuals are able to participate vicariously in remote events and to share in the emotions of those who are actually participating in the event.

No one needs the evidence of social science research to know that the assassination of President John F. Kennedy on November 22, 1963, produced an immediate and profound emotional shock to almost everyone in this country, and in many parts of the world. The response was so intense and so extensive that one might well ask whether anything useful can be further said about it, since almost everyone has similar first-hand experience with the emotional reaction. But tragic and painful as such experiences are, they do provide an important opportunity to understand more fully the nature of human emotion and the way in which emotional reactions change over time. As an event common to all and capable of producing such intense emotional reaction, the Kennedy assassination provided an unparalleled opportunity for studying reactions to a social trauma.

In November, 1963, we were nearing the end of our interviewing on Wave III. With some trepidation concerning the propriety of intruding ourselves on our respondents again, but

impelled by a need to do something, we decided to reinterview a subsample of our respondents in the Washington suburban county and the inner city of Detroit. Interviewing began on November 26, the day after the President's funeral, and was completed by December 1. The subsamples consisted of 194 people living in the Washington suburban county and 172 people living in the Detroit inner city. All respondents in the Detroit subsample were Negro, and almost all those in the Washington area were white. We used the questionnaire designed for a national study of reactions to the assassination conducted by NORC (Sheatsley and Feldman, 1965). This questionnaire contained many of the items on feeling states that we had used in our Wave I and III interviews. Thus the data obtained from the post-assassination interviews in late November and from two previous waves of interviews conducted earlier in the year in January–February (Wave I) and October–November (Wave III) enabled us to look in some detail at the effects of such a traumatic event on the reported feeling states of individuals.

Before examining the data, it is worth pausing for a moment to consider what we might expect people to report. It is clear from personal observation, as well as from extensive newspaper reports, that the overwhelming reaction was one of shock and grief. The feelings of shock, disbelief, emptiness, profound sadness, and a great sense of personal loss were the ones most commonly reported by those who commented on the situation. We would thus expect an increase in the number of reports of feelings such as these, or analogous ones, which we had been asking about in our earlier waves.

What might not be so clearly noted, however, is that at the same time that there were deep expressions of grief, there was an increase in social cohesion. The rate of interpersonal communication grew dramatically. Strangers stopped to speak on the street, the telephone lines became overloaded as the volume of calls rose sharply, and people just seemed to feel a great need to talk to one another. The mass media devoted practically its entire time and attention to the tragedy and provided a focal point of information, history, and commentary, and even an opportunity to witness the subsequent murder of Lee Harvey Oswald, the accused assassin. Perhaps never before in history have so many people focused simultaneously on a single set of events and been drawn into such

close communion with one another. Since we have already seen in Chapter 8 that there is a relationship between social interaction and novel experience, we might expect that there would also be an increase in reports of some items in our positive feelings battery.

POSITIVE AND NEGATIVE AFFECT AND THE ASSASSINATION

We are suggesting that the reactions to an event, such as the assassination of President Kennedy, are complex and that although we expect a predominent reaction of loss and grief, we also expect some attendant positive reactions stemming from the greater degree of social cohesion, interpersonal communication, and interest surrounding the events. We see some evidence of these contrasting reactions when we look in Table 11.1 at changes in the reported feeling states that form our battery of positive and negative feelings. Looking first at the negative feelings, we see that between January (T_1) and October (T_2), there was a small but consistent decrease in reports of each of the negative feelings, a finding that we noted earlier in Chapter 4. In contrast, however, when these same respondents were reinterviewed in November (T_3), the reports of being "depressed or very unhappy" increased sharply. This, of course, is the one item in the negative feelings battery that most directly expresses the types of grief reactions occurring at the time.

While there is a sharp increase in reports of feeling depressed or very unhappy, it is perhaps still somewhat surprising that only little over half of the respondents in late November reported having felt that way during the past few weeks. We should note, however, that the feeling-state question occurred in the later part of the interview in a section concerning political and social attitudes and biographical information and was deliberately separated from the direct questions concerning reactions to the assassination. It is possible that many respondents interpreted this question as referring to feelings other than those specific to the assassination, which they had already discussed.

On the other side of the ledger, there is a sharp increase in reports of feeling excited or interested; while there are fairly marked decreases in feeling proud, pleased, and that things were going your way. Thus we see the rather complex pattern of con-

Table 11.1 Distribution of Affect Items in January, October, and November, 1963, for Subsamples in Washington Suburban County and Detroit Inner City (Per Cent "Yes")

Item	Washington Suburban County					Detroit Inner City				
	January T_1	October T_2	Difference T_2-T_1	November T_3	Difference T_3-T_2	January T_1	October T_2	Difference T_2-T_1	November T_3	Difference T_3-T_2
Positive affect items:										
Excited or interested in something	66	61	−5	77	+16	46	45	−1	65	+20
Pleased about having accomplished something	81	80	−1	71	−9	71	65	−6	63	−2
Proud because someone complimented you	75	72	−3	58	−14	64	63	−1	50	−13
Things going your way	68	76	+8	64	−12	46	60	+14	50	−10
On top of world	30	33	+3	29	−4	18	19	+1	12	−7
Negative affect items:										
So restless that you couldn't sit long in a chair	44	44	0	50	+6	45	43	−2	47	+4
Depressed or very unhappy	38	33	−5	54	+21	43	39	−4	52	+13
Bored	36	30	−4	29	−1	38	30	−8	27	−3
Very lonely or remote from other people	27	24	−3	28	+4	33	32	−1	28	−4
Upset because someone criticized you	19	18	−1	18	0	22	15	−7	15	0
	N = 192					N = 172				

trasting feelings—that of depression and unhappiness on the one hand, and excitement and interest in the event on the other. The net effect of the differential changes in reports of positive and negative feelings is such that it leaves scores on the Positive and Negative Affect Scales relatively unchanged. The absence of any significant changes in these scores, of course, means no significant change in the Affect Balance Scale scores (table not shown).

EMOTIONAL REACTIONS TO THE ASSASSINATION

While the responses to the feelings batteries show dual aspects of the reactions people experienced during this period, responses to other questions adapted from our physical symptoms battery reveal the specific nature of emotional reactions during the four days between the President's assassination and the funeral. Table 11.2 presents the per cent reporting that they experienced each of twelve types of reactions at some time during those four days. For comparison purposes, we also give the distribution of responses to these questions for the national sample of adults in NORC's larger study of reactions to the assassination. The most frequently reported symptoms are those that psychiatrists describe as being

Table 11.2 Physical Symptoms Experienced during Four-Day Period after President Kennedy's Assassination (Per Cent)

Symptom	National Sample	Washington Suburban County	Detroit Inner City
Felt very nervous and tense	68	64	82
Felt sort of dazed and numb	57	53	54
Cried	53	62	65
Had trouble getting to sleep	48	34	65
Didn't feel like eating	43	40	66
Felt more tired than usual	42	42	58
Smoked much more than usual	29	28	37
Had rapid heart beats	26	13	32
Had headaches	25	21	41
Had an upset stomach	22	18	21
Hands sweat and felt damp and clammy	17	9	17
Felt dizzy at times	12	5	22
N	1,384	194	172

typical of grief: nervousness, feelings of numbness, crying, trouble getting to sleep, and losses of appetite and energy. Here we might also note the relative infrequency of such symptoms as dizziness, sweating hands, upset stomach, and headaches, which are traditional somatic indicators of anxiety.

The distinction between grief and anxiety reactions is not clearly made in psychiatric literature, and indeed perhaps cannot be precisely made because of a frequent anxiety component to grief reactions. In this particular study, however, we are able to delineate clearly the type of reactions experienced by our respondents. In general, these reactions are similar to those described by Engel (1961) as being characteristic of normal grief. If we limit ourselves to those reactions for which we have panel data, we can see the change in items during the three different interview periods— January (T_1), October (T_2), and November (T_3). As we see in Table 11.3, there were small changes between January and October in the per cent reporting the various symptoms. These changes were negative for some items and positive for others. Between the interviews conducted just before the assassination and those conducted immediately afterward, there were, however, very marked increases in nervousness, trouble sleeping, tiredness, smoking, and, for Negroes in Detroit, rapid heart beats. On the other hand, there were small changes in upset stomachs, dizziness, sweating hands, and, for whites, rapid heart beats. There was also a considerable decrease in the per cent reporting headaches by respondents in the Washington suburb, but not by Negroes in Detroit. The decrease in headaches may be further indication of the external focusing of emotion that is characteristic of grief at the loss of a loved one, contrasted with the inward turning of emotion in anxiety reactions, as described by Fenichel (1945).

Although some of the symptoms characteristic of normal grief may also, under certain circumstances, be indicative of anxiety, the converse is not true; that is, not all of the symptoms that usually go into an anxiety scale are also indicative of grief. Thus, in order to be able to investigate differential reactions better, it was convenient to construct two indices that summarize the responses. The first index, which we might call a "grief symptom" index, consists of four of the items for which panel data were available that are

similar to those described by Engel (1961) as being characteristic of grief: nervousness, trouble sleeping, loss of energy, and increased smoking. The index was formed by giving a person a score of 1 for each symptom he reported at a particular time and then summing the number of symptoms reported. Thus, each person could obtain a score between 0 and 4 on the index. The second index, which we might call an "anxiety symptom" index, was similarly scored for each of the remaining five symptoms, which are generally considered indicative of anxiety. Scores on this index range from 0 to 5. By using the two indices, we can compare changes that occurred within different subgroups of our samples.

As can be seen in Table 11.3, the mean score on the grief symptom index changes very slightly from January (T_1) to October (T_2), but increases quite significantly between the October (T_2) and November (T_3) interviews. The second-order differences, i.e., T_2-T_1 and T_3-T_2, are also significant ($p < .05$) for both samples.

The mean score for the anxiety symptom index remains about the same between January and October for both samples. Between the October and November interviews, the mean for the index declines significantly for the Washington suburban sample and increases slightly, but not significantly, for the Detroit sample. One must be cautious in interpreting the changes in this index because it is heavily influenced by the decline in the report of one item, headaches, and does not change consistently for both samples. The stability of both indices between January and October and the sharp rise in the grief symptom index in comparison with the inconsistent changes in the anxiety symptom index, however, indicate that the reactions were specific to a grief response and that, at a minimum, there was not a widespread increase in anxiety in the population.

How might the course of events after the assassination have differed had anxiety been more prevalent? It has been suggested that scapegoating is a common mechanism for the release of anxiety. Under such conditions, certain segments of the population are widely blamed for all social evils, the belief being that the removal of these agents of the devil from society will bring back the idyllic conditions of an earlier era. Such a view, which Neumann (1960) called the conspiracy theory of history, has been the basis of vari-

Table 11.3 Distribution of Responses to Symptom Checklist in January, October, and November, 1963 (Per Cent "Yes")

Symptom	Washington Suburban County					Detroit Inner City				
	January T_1	October T_2	Difference T_2-T_1	November T_3	Difference T_3-T_2	January T_1	October T_2	Difference T_2-T_1	November T_3	Difference T_3-T_2
Nervous and tense	57	50	−7	64	+14	45	42	−3	82	+40
Trouble getting to sleep	21	20	−1	34	+14	30	20	−10	65	+45
More tired than usual	24	21	−3	42	+21	30	25	−5	58	+33
Smoked much more than usual	11	8	−3	28	+20	8	8	0	37	+29
Mean score on grief symptom index	1.12	.98	−.14	1.67	+.69[a]	1.13	.93	−.20	2.42	+1.49[a]
Rapid heart beats	13	12	−1	13	+1	15	14	−1	32	+18
Upset stomach	23	23	0	18	−5	18	23	+5	21	−2
Dizzy at times	16	10	−6	5	−5	30	23	−7	22	−1
Headaches	44	46	+2	21	−25	50	46	−4	40	−6
Hands sweat and felt damp and clammy	15	11	−4	9	−2	13	15	+2	17	+2
Mean score on anxiety symptom index	1.11	1.03	−.08	.65	−.38[a]	1.25	1.22	−.03	1.33	+.11
	N = 192					N = 172				

[a] $p < .001$.

ous movements in American history such as the Know-Nothing Party of the 1850's, the Ku Klux Klan, and more recently, the John Birch Society. Parsons (1955) has ascribed the witch-hunts of the McCarthy period to the strains of rapid social change in the postwar period. The assassination of the President by an admitted Communist sympathizer would appear to have set the stage for a resurgence of fears about Communist infiltration and for a revitalization of the interpretation of all contemporary problems as being the result of the Communist conspiracy. But such a reaction did not come.

The lack of a generalized anxiety reaction, as indicated by our data, would be consistent with the absence of a "witch-hunt" reaction toward Communists or Communist sympathizers, or even of any noticeable public reaction against those groups or individuals who were most likely to have been in a plot with Oswald. Sheatsley and Feldman (1965) have pointed out that, at the time of the interviews, the majority of the people in the country believed that Oswald had been part of a larger plot. At the same time, however, there was a noticeable lack of concern with ferreting out the plotters or taking action against those groups with which Oswald had been associated. The fact that popular reaction appears to have been almost totally directed toward grief suggests an explanation, at the psychological level, of the small concern with a strong anti-Communist movement. If one function of such witch-hunts is to allay anxiety that is widespread in the population, the absence of anxiety reactions to this event meant that one of the essential motivations for such a mass movement was lacking. The spate of books and investigations subsequent to the assassination that have attempted to develop the plot theory have aroused only cursory interest on the part of the public. One suspects that even at the time of the assassination, attempts to start such a movement would have received little response from the population at large.

We should also note in Table 11.3 that Negroes appear to have shown greater grief than whites. The change in the grief symptom index for the Negro respondents in the Detroit sample is significantly greater ($p < .001$) than the change for the respondents living in the Washington area, most of whom are white. Since it has been traditional to consider Negroes as politically apathetic, this

difference could be cited as evidence that those who are normally apathetic responded deeply to this event. On the other hand, in view of the recent emergence of a strong civil rights movement, one could argue that Negroes are abandoning their political apathy and that their greater reaction to the assassination indicates their awakening involvement in the political process. One indicator—the proportion voting in 1960—rates the Negroes in Detroit as highly active, with 85 per cent reporting that they voted in the 1960 presidential election. Whatever their degree of political involvement, however, the depth of the reaction shown by the Negroes to the President's assassination was probably in large part a function of his identification with the civil rights movement.

SUMMARY AND CONCLUSIONS

In Chapter 2, we pointed out that we had designed our study originally to investigate the effects of social changes that we anticipated would occur in different communities during the period when we were interviewing; but these events did not occur. Instead, a wholly unanticipated tragic event occurred that affected all of our communities. By reinterviewing a subsample of our respondents, we were able to show the sharp and focused reaction to this traumatic event. We could show that there was a strong and specific grief reaction, but that there was no concomitant anxiety reaction, and that there was an increase in at least one positive feeling, as well as in a negative feeling.

In our pilot study (Bradburn and Caplovitz, 1965), we similarly attempted to measure the reaction to the Cuban missile crisis of October, 1962. Either because we were interviewing at a longer time after the event or because the event did not really produce as great an impact, we were unable to show much change in the reported feelings of our respondents. The small changes that were detected, however, did indicate the contrasting effects of a stressful event, with both an increase in some symptoms of anxiety and worry and, at the same time, an increase in positive feelings of interest and excitement. There, of course, the stimulus was apt to provoke fear rather than grief; and the threat, though perhaps considerably too close for comfort, was still more remote than the events of the assassination.

Socially stressful events have complex consequences. Some events that one might expect to cause widespread social disorganization, such as the bombing of civilian populations or a widespread power failure, appear to produce not only fear and stressful consequences, but also act to promote social cohesion. Other events, such as the famous "Invasion from Mars" radio broadcast and some instances of natural disasters, appear to cause panic and social disorganization. Why some events produce almost totally negative reactions and others produce mixed or even predominately positive reactions is little understood.

Our ability to measure the social-psychological reactions to significant events in large environments is still severely limited. We are a long way from being able to distinguish between events that are apt to provoke heavily negative reactions, but also with positive, socially integrative consequences, and those that produce purely negative reactions with the possibility of panic, riots, or mass hysteria as a result. Part of this failure comes from the fact that there has been relatively little systematic research on psychological reactions to significant social events; but perhaps more important, the failure stems from the lack of a conceptual framework within which to study such events. Hopefully, a framework that takes into account the independence of positive and negative affect dimensions may be one approach to a fruitful study of such events.

12

Summary and Conclusions

The final chapter of a scientific monograph is traditionally the place where the author sits back and takes the reader on a conducted ramble through the detailed analysis that has gone before, summarizing the principal findings, commenting on the things that didn't turn out quite the way they had been anticipated, and pointing out the areas where future research is needed. Such a tour may be a tedious recapitulation written primarily for the benefit of those who do not want to read the entire book, or it may be where the author abandons some of his scientific caution and goes beyond the conservative interpretation of his data to speculate on a range of implications that he would like to find in his data. In this chapter we shall adopt the latter approach and discuss some of the implications emerging from our study that may contribute to an understanding of some of the more important problems in modern life.

This has been a book about a forest, or perhaps better a jungle, that is usually called "mental health." It is a deep and seemingly impenetrable forest distinguished by a wide variety of trees—some exotic, others commonplace—that are all intertwined in a fashion to discourage the scientific woodsman from even beginning a search for order. Our research project was motivated by the imprecise, yet distinct, feeling that much of the previous research had become bogged down in the study of particular, fascinating trees and, in so doing, had lost sight of the forest. Although we have had to deal with individual trees, we have attempted throughout the foregoing pages to keep our eyes firmly fixed on the whole forest and not to be sidetracked into the pursuit of interesting byways that would detract from the study of the whole.

We entered into this research with another bias—that this particular forest was not all there was to the world, and that what went on inside the forest was not only a function of things internal to the forest but was also influenced strongly by outside factors, such as the harshness of the climate, the richness of the soil, and the friendliness of the people who take care of the trees. In short, any living thing exists in an environment; and we cannot understand what occurs within a living being without a thorough knowledge of its interaction with that environment. Thus, in our study we have paid particular attention to those sources of variation that stem from environmental variables.

While it is clear that what a thing is called and what it is are not necessarily the same thing, it is also clear that terms used to refer to an object of study greatly influence how it is studied. We have called our forest "happiness," or "psychological well-being," thereby choosing only one of the several different meanings ascribed to the concept of mental health (Jahoda, 1958). By so doing we are implicitly stating our belief that the modern concern about mental health is really a concern about a subjective sense of well-being, or what the Greeks called *eudaemonia.* We believe this because, among other reasons, it is obvious that our forest is as old as man, and happiness is the name that has been given to it throughout recorded history. Just as problems of physical well-being, i.e., sickness and health, have been with man since the dawn of history, so have problems of psychological well-being, i.e., happiness and unhappiness. It seems to us that the usurpation of the old terms by the mental health movement reflects our health-oriented culture and the great strides made in the treatment of physical illness.

By naming our forest "psychological well-being," we have not meant to imply that concepts such as self-actualization, self-esteem, ego-strength, or autonomy, which others use to describe the forest, are irrelevant to our study, but only that they can be better viewed as species of trees that are part of the forest, rather than as the forest itself. While we have said relatively little about these particular trees, we do not doubt that they are an integral and important part of the whole.

The trees we selected for special study are subjective feeling

states that individuals experience in their daily lives. As a first approximation, we classified them into two kinds—positive and negative—a dichotomy that has been recognized by almost everyone who has given thought to the matter. When we translated these concepts into operational measures and collected systematic data, we found evidence that indeed there do appear to be at least two types of feelings and that the difference between the number of positive and negative feelings is a good predictor of a person's overall rating of his own happiness. Similarly, we expected that these two types of feelings would have an orderly relationship to a person's feelings of well-being or happiness. Such expectations were derived from general utilitarian notions that have been common since the days of the Greek philosophers.

We also found something unexpected and not widely commented on for centuries: the two types of feelings are independent of one another. When we say that they are independent of each other, we do not mean that they can occur simultaneously or that people move from positive to negative feelings and back again in a cyclical fashion. We mean that within a given period of time, such as a week or two, one may experience many different emotions, both positive and negative, and that in general there is no tendency for the two types to be experienced in any particular relation to one another. This lack of correlation means that information about the extent of positive feelings a person has experienced in the recent past does not give us any information on the extent of his negative feelings.

To many, this lack of correlation is surprising, not to say unbelievable. But surprise is a relative matter; and given man's abilities to rationalize his environment, we know that what is surprising at one time can become commonplace a short time later. When we reflect on our everyday life, we note that we have a number of different experiences each day. Sometimes these are all good, sometimes all bad, but mostly they are mixed—some pleasant, some unpleasant; some soothing, some vexing; some ego-building, some ego-destroying. Many people have more pleasant than unpleasant experiences; and others, less fortunate, have more unpleasant than pleasant experiences. To restate the obvious, some people are happier than others.

In addition to the fact that people differ in the number of pleasant and unpleasant experiences, they differ in the number of feelings they report. Some people either have many more experiences that produce affect of one kind or another, or they are differentially sensitive so that they report more affect. Further, differences in the quantity of affect are not related to the quality; that is, people who report a lot of feelings are not happier than those who report few feelings. Thus, we find there are a number of people who report having experienced both many positive and many negative feelings during the recent past, while others report few feelings of either kind. Both of these groups, however, have similar distributions of self-reports of happiness. While these findings may be surprising to those who are accustomed to thinking of positive and negative affect at opposite ends of a single continuum, we believe that upon reflection it will be seen that the findings do not, in fact, do violence to our everyday experience.

Having identified what we considered the basic structure of our forest, we pushed on to examine the distribution of positive and negative affect within the social structure. Here we confirmed with our measures what has been consistently found in a variety of approaches to the study of mental health. The tenor of the findings can be stated in not too oversimplified terms by saying that "the more one has, the more one gets." To those who have the attributes that go with positions higher in the social structure, such as higher education and income, also go the psychic rewards of greater happiness. More detailed investigation of the monetary component of these attributes suggests that income does have a strong relationship with overall happiness, but it is not clear exactly how money exhibits its beneficent power. It seems certain, however, that the miserly joy of possession is not the critical factor. Another interesting feature of the differences in social structure is that, by and large, the relationships between the social-structure variables and the components of psychological well-being are stronger for positive affect than for negative affect. Such a finding suggests that money may enable one to increase his joys, but it cannot decrease his sorrows.

Some further clarification of the differential relationship between social-structure variables and positive and negative affect was seen

when we investigated the correlates of these two dimensions. We found that the measures of negative affect correlated with other measures that have been extensively used in studies of mental health and illness. These measures, such as anxiety indicators, psychosomatic symptoms, worry, and interpersonal tensions, had no relationships to our measures of positive affect. The measures of anxieties and sorrows of life did, however, show a positive correlation with our more nearly overt measures of mental health problems, such as reporting that one had felt as if one were going to have a nervous breakdown or that one had actually sought professional help in connection with a nervous or emotional problem.

On the other hand, the positive affect measures were correlated with indicators of social involvement and new or varied experiences. The opportunities for such involvement and experiences are, of course, much higher for those who are higher in the social structure. One of the most consistent empirical findings in sociology is the positive correlation between socioeconomic status (SES) and social participation. It is not known in any detail why this correlation exists, but one would surely surmise that the higher portion of income that those in higher SES positions have available for discretionary expenditures would be one important factor in facilitating this greater participation. Certainly it is reasonable to expect that those with more money and, perhaps, those with the wider interest that would come from higher education would be more likely to travel, do different or unusual things, and have a chance to meet new people. Thus, it would appear that the social opportunity structure in which people of higher SES live would facilitate their having the kinds of experiences that are associated with higher positive affect.

At the other end of the social spectrum, the drabness, monotony, and meanness of life in the areas of poverty have been described eloquently by many observers. While it seems likely that the crowded conditions and deteriorated housing would lead to increased irritability and interpersonal tensions, an even more depressing influence on positive affect would probably be the marginal income of the poor and the restricted and hostile social environments within which poor people live.

Perhaps some realization of this component of happiness was

understood by the Romans in their prescription for keeping the masses content—"bread and circuses." The function of circuses might well be to provide the kind of stimulation and novelty that is associated with the experiencing of positive affect. Some observers have noted that, for all their violence and destruction, the urban ghetto riots that are becoming an increasingly familiar summer phenomenon have a carnival quality for many of the participants. While riots have too many other obvious contributing causes to suggest that a need for novelty is one cause, a latent function may be to provide an extremely varied type of experience that may, in a socially destructive way, contribute to increases in some people's positive affect.

The dual structure of psychological well-being appears also in somewhat modified form when we investigate people's experiences in two of the major roles of adult life—marriage and work.

For marriage, we were able to show an almost exact parallelism between the structure of positive and negative affect and a structure of positive satisfactions and tensions in marriage. The parallelism of the structures suggests the usefulness of our overall model in detailed studies of marriage happiness. Such studies have been pursued elsewhere (Orden and Bradburn, 1968, 1969).

The dimensions of positive satisfactions and negative dissatisfactions with work have already been demonstrated by Herzberg and his co-workers (Herzberg *et al.,* 1959; Herzberg, 1966). In our study we did not attempt to develop measures that would show an exact parallel structure. Instead, we pursued an analysis of work satisfaction in the context of positive and negative affect. While such an analysis turns out to be extremely complex, it seems clear that the positive and negative affect dimensions are important to different aspects of work.

In sum, then, we have surveyed our forest and found that it can be usefully organized in terms of the dimensions of positive and negative affect. The detailed analysis in the foregoing chapters has been devoted to investigating the conceptual and measurement problems involved in viewing the forest in this manner and to exploring in some detail the relationship of these two variables to other concepts that have been traditionally viewed as important in the study of mental health.

UNRESOLVED PROBLEMS

In many respects the research reported in this volume only scratches the surface of the problem. While we have tried to relate our study to past research, the approach taken here differs in fairly significant ways from previous research and, in so doing, raises as many questions as it answers.

1. The independence of the dimensions of positive and negative affect raises perhaps the most significant question, since this finding lies at the heart of our study. Why do we find these dimensions to be independent when others have found only a single dimension? One hypothesis is that the independence is an artifact of the items that we chose in our feeling-state battery. It might be argued that if we had taken items which were exact opposites of each other, we would have found significant negative correlations between the opposites. The problem of sampling feeling states is, of course, a difficult one, and will require more attention in the future. It is clear that our ten items do not exhaust the richness and variety of human emotional experiences, and it would doubtless be worthwhile to develop a more systematic catalog of feeling states from which to sample. Our experience with some of our items that do, at least on the face of it, appear to be nearly opposite one another does not lead us to expect that any larger list would be more likely to produce significant negative correlations between positive and negative items, except perhaps in the trivial case of direct negation. If considered in pairs, some of our items, such as "excited or interested in something" and "bored," "proud because someone complimented you on something" and "upset because someone criticized you," "on top of the world" and "depressed or very unhappy," appear to be nearly opposite to one another; and yet they did not produce any large negative correlations. This matter, however, can only be definitively settled by the necessary parametric research.

The hypothesis that we feel has a greater likelihood of explaining the divergence of our data from previous work centers on the wording of the question. We asked our questions in terms of whether the respondent had felt a particular way during the past few weeks. Other investigators who have used similar items have asked questions in terms of whether the respondent feels this way often or not very often. It seems to us, for example, that a person can

feel both "bored" and "excited or interested in something" during a several-week period. During that time he may have felt "excited or interested in something" many times and "bored" only once or twice. In response to our question, he would quite truthfully report that he had felt both ways during the past few weeks; while in response to a question phrased in terms of the frequency of feeling particular ways, he might well answer that he feels "excited or interested in something" very often and "bored" seldom or never. Such a response pattern would produce a negative correlation between "excited or interested" and "bored."

In effect, what the respondent is doing when asked whether he feels particular ways "often" or "seldom" is to average out his experiences over the long haul and give us a report of the way he feels most frequently. Thus, we would hypothesize that when the respondent is asked a non–time-focused general question about his feeling states, he performs the arithmetic that we perform when we subtract the time-focused reports of negative affect from those of positive affect. As a result, he produces for us the Affect Balance Scale, or well-being dimension. It is, of course, possible to test this explanation by further empirical work; but it has not been done yet.

2. Another question that awaits further research is the number of dimensions necessary for a complete accounting of variations in psychological well-being. Two dimensions fit nicely into the traditional distinctions between pleasure and pain that have been fundamental to hedonistic thinking for centuries. While these two dimensions have considerable intuitive appeal because of their simplicity and historical precedence, the complexity of human emotional experience probably cannot be accounted for adequately in such a simplistic fashion. Wessman and Ricks (1966), in their study of mood changes over a considerable length of time, distinguished four separate dimensions. These dimensions emerged from a factor-analytic approach to a considerably larger list of terms descriptive of feelings than the one we employed. Their respondents, however, were a highly educated, intelligent, and articulate group of undergraduates; and it is difficult to know the extent to which this factor structure might be applicable beyond such a sophisticated population. As the extent of the universe of feeling states common in the general population is explored further, data should

be forthcoming that will enable us to answer this question.

3. The correlates of positive affect comprise another important area where further research is needed. The evidence is fairly conclusive that our negative affect dimension is the same as that which turns up in many different studies of mental health and illness under such names as anxiety, neurotic tendencies, psychoneurotic symptoms, or psychic impairment. However, even from our own data it is not clear precisely what we are tapping in our positive affect battery. For theoretical reasons, the notion that positive affect is associated with new or varied experiences is an extremely attractive one. As we noted in Chapter 8, however, the relationships between positive affect and our measures of social participation and varied experience are not terribly strong and do not show the concomitant variation over time that we would like to see. On the other hand, our measures of environmental variability were relatively crude and arrived at rather late in our study. Further, there is a vexing question of causality. While it would be nice to be able to say that social experiences or novel activities cause positive affect, it is clear that a causal chain could work equally well in the opposite direction. No simple causal model is probably applicable to either positive or negative affect, but at this point there is little that we can say on this matter.

We have few clues to possible future directions to take in the exploration of positive affect. The one possible clue lies in the fact that the correlation between SES and positive affect was never totally removed by the controls for sociability and novelty. We suspect, then, that experiences related to SES differences should be delineated further. Our guess is that these experiences concern a set of variables related to control over one's environment, freedom to direct one's own activities, success in the pursuit of one's goals, and that rather nebulous concept, ego-strength.

4. A fourth area for future analysis relates to cross-role analysis. In our discussions of marriage and work, we considered the data relevant to only a single role adjustment. People, however, play many roles; and the experiences in one role carry over into performance in other roles. In a separate paper (Orden and Bradburn, 1969), we have done some explorations of the relationship between work status and marriage happiness; but this is only a small part

of what can be done. We believe that the framework of positive and negative affect will be extremely fruitful in examining how different aspects of role performance affect one another and, in turn, affect overall psychological well-being. Such cross-role analysis is notable for its sparsity in the literature, and we hope that others will carry forward the research in this area vigorously.

5. The question of individual differences, which we have ignored almost totally in this study, is a fifth area for future research. We felt that an energetic pursuit of sources of variation stemming from individual differences was premature in a study such as ours. Because of the scope of individual differences and attendant measurement problems, we have, for the most part, eschewed the temptation to give them their due. We felt that this indeed would be pursuing the study of trees at the expense of losing sight of the forest. In establishing priorities for future research, we would still feel that a detailed investigation of individual differences in psychological well-being would have little payoff until some of the larger questions mentioned earlier are clearly answered. Until the nature of the forest is fully understood, too much attention to the small variations among the trees may well be less than helpful.

6. An area of research in which we have only made tentative beginnings concerns the effects of major social change on the psychological well-being of the population. Social critics have written a great deal on trends in modern society. Some feel that we are moving into an age of increased anxiety and greater social tensions. Others feel that as the general standard of living increases throughout the world, it is becoming a healthier place to live, both physically and psychologically. Systematic evidence, such as has been brought to bear by Goldhamer and Marshall (1953) and Inkeles (1960), seems to favor those who believe that things are getting better or, at least, no worse. If we could understand the nature of the forest with sufficient clarity, we would be in a position to collect data systematically over time and trace the changes that occur. Perhaps if it were done on a sufficiently regular basis, we might even be in a position to identify subgroups who were not keeping pace with the changes in the rest of the population. If such subgroups could be reliably identified and the nature of the problems

brought out forcibly, ameliorative action could be taken before the situation erupted in wide-scale destruction and violence.

Recent concern for the development of social indicators (Bauer, 1966) reflects, in part, the belief that we have reached a stage in the technology of social sciences where data relevant to psychological well-being can be gathered on a systematic basis. Such data would trace changes in social relationships and in the subjective quality of life, as well as measure some of the more obvious economic changes. Social policy in our country is based on implicit utilitarianism. The wisdom of a particular social policy depends considerably on the extent to which it is able to accomplish the goals to which it is addressed. Insofar as we have greater understanding of how people arrive at their judgments of their own happiness and how social forces are related to those judgments, we shall be in a better position to formulate and execute effective social policies. If the research described in this book makes even a small contribution toward the accomplishment of that goal, we shall feel that it has been successful.

Appendix 1

Characteristics of Panel Losses: Wave I to Wave III

Interviewing for Wave III, which was the second full wave of the panel study on behavior related to mental health, began in October, 1963—approximately ten months after the original interviews of Wave I.[1] Where possible, respondents were contacted by the interviewers who had conducted the Wave I interview. Out of the original 2,787 interviews, there were 2,163 completed panel interviews, a completion rate of 78 per cent. Breaking down this completion rate by the five samples, we see little systematic variation among them: in the Washington suburban sample, the rate was 78 per cent; in the inner city of Detroit, 78 per cent; in the Detroit suburb, 79 per cent; in the ten metropolitan areas, 77 per cent. Only in Chicago was there a substantial difference, with only a 70 per cent completion rate for the panel interviews. Chicago also had the lowest completion rate in the original interviewing.

While these rates are respectable for a survey consisting of long personal interviews in urban areas, they do not represent any substantial improvement over the rates for the first wave. We had hoped that the panel interviews would be easier to obtain because the respondents had already answered once and could be more easily induced to cooperate a second time. Whatever facilitation resulted from a repeated interview, however, appears to have been offset by difficulties in locating respondents who had moved during the intervening period. In addition, it appears from NORC Field

[1] Waves II and IV of the main study consisted of the Detroit suburban sample only.

Department reports that many who were extremely reluctant respondents in Wave I were even more reluctant and more likely to refuse in Wave III.

While we know practically nothing about the characteristics of those who refused to be interviewed or could not be located in the first wave of interviewing, we can examine the characteristics of those who were lost in the panel. If we assume that the characteristics of the panel dropouts are roughly similar to those of the original non-respondents, we can estimate some of the biases that might be introduced into our sample.

SOCIAL AND DEMOGRAPHIC CHARACTERISTICS OF NON–RESPONDENTS

We would expect that those characteristics reputedly associated with lower completion rates in interviewing would also be over-represented in the panel dropouts. Gaudet and Wilson (1940) reported data showing that panel losses tend to concentrate among respondents in the lower socioeconomic groups. Zeisel (1957) presented some unpublished data from the Bureau of Applied Social Research indicating that younger people and those from large cities are more likely to be lost in panel studies than are older people and those from smaller communities. According to an NORC study (1948), dropouts are more likely to be Negro and either wealthy or poor, but not middle class. A recent study by Vincent (1964) also reported a curvilinear relationship between panel loss and socioeconomic status in a ten-year mail questionnaire follow-up. Rosenberg, Theilens, and Lazarsfeld (1951) indicated that in most voting-study panels, dropouts tend to be less educated, lower in socioeconomic status, and less interested in the subject matter of the panel.

We see in Tables A-1.1, A-1.2, and A-1.3 that dropouts generally tend to be lower in education and income and lower on the socioeconomic index than those who were reinterviewed. These trends, however, are not striking or entirely consistent within each of the five samples. We might note, for example, that in the inner city of Detroit, where there is a marked skewing toward the low end of the income and education distributions, dropouts with less than an eighth-grade education and with incomes of less than

$3,000 a year are slightly underrepresented. The largest biases are introduced in the ten metropolitan areas sample, where overrepresentation of the low-income and low-education respondents in the dropout group is quite substantial. This sample, however, is the smallest of the five; and even these rather marked biases do not seriously affect the sample marginals.

Overall, despite the slight biases, there is relatively little shift in

Table A-1.1   Education and Panel Loss (Per Cent)

Sample	Eighth Grade or Less	Part High School	High School Graduate	Part College or More	NA	Per Cent	N
	Education					Total	
Washington suburban county:							
Wave I	12	22	34	31	–[a]	99[b]	1,277
Wave III	11	21	34	34	–	100	1,001
Dropouts	17	27	34	22	0	100	276
Detroit inner city:							
Wave I	43	33	16	8	0	100	446
Wave III	44	32	16	8	0	100	350
Dropouts	38	35	19	7	0	99[b]	96
Detroit suburb:							
Wave I	17	29	41	14	–	101[b]	542
Wave III	17	28	42	13	–	100	427
Dropouts	17	34	34	15	0	100	115
Chicago:							
Wave I	41	32	15	12	0	100	252
Wave III	41	33	15	12	0	101[b]	177
Dropouts	43	29	17	11	0	100	75
Ten metropolitan areas:							
Wave I	16	23	30	32	0	101[b]	270
Wave III	12	24	29	35	0	100	208
Dropouts	29	19	31	21	0	100	62
Total sample:							
Wave I	21	26	30	22	–	99[b]	2,787
Wave III	20	25	31	24	–	100	2,163
Dropouts	25	29	29	17	0	100	624

[a] In this and following tables, the dash represents less than 0.5 per cent.
[b] Not 100 per cent because of rounding.

the marginal distributions for education or income in any of the five samples and, consequently, in the sample as a whole.

One of the principal difficulties in getting repeated interviews with the same person is locating the respondent after a period of time. We would expect a disproportionate number of panel dropouts among people who are more mobile, particularly those who are younger and unmarried. We see in Table A-1.4 that those not currently married were indeed overrepresented among the drop-

Table A-1.2   Income and Panel Loss (Per Cent)

Sample	Family Income (Wave I)						Total	
	Less than $3,000	$3,000–$4,999	$5,000–$6,999	$7,000–$9,999	$10,000–or More	NA	Per Cent	N
Washington suburban county:								
Wave I	5	12	24	29	27	2	99[a]	1,277
Wave III	5	11	24	30	29	2	101[a]	1,001
Dropouts	6	16	26	29	19	3	99[a]	276
Detroit inner city:								
Wave I	38	26	20	6	2	8	100	446
Wave III	39	25	20	7	2	7	100	350
Dropouts	34	31	21	4	0	9	99[a]	96
Detroit suburb:								
Wave I	4	10	33	33	19	2	101[a]	542
Wave III	3	10	32	34	19	2	100	427
Dropouts	4	12	34	30	17	2	99[a]	115
Chicago:								
Wave I	10	20	35	23	8	4	100	252
Wave III	9	21	34	25	7	4	100	177
Dropouts	13	17	36	17	11	5	99[a]	75
Ten metropolitan areas:								
Wave I	8	15	24	26	24	4	101[a]	270
Wave III	6	12	26	27	26	3	100	208
Dropouts	16	24	18	21	14	7	100	62
Total sample:								
Wave I	11	15	26	25	19	3	99[a]	2,787
Wave III	11	14	26	26	20	3	100	2,163
Dropouts	12	19	27	23	14	4	99[a]	624

[a] Not 100 per cent because of rounding.

outs, although this trend was not marked except in the cases of Chicago and the ten metropolitan areas, the two smallest samples. Again, however, the overall marginal distributions of marital status do not change more than a few points.

Age biases (Table A-1.5) tend to be considerably smaller and less consistent from sample to sample. Thus, in the inner city of Detroit, there is a marked overrepresentation of respondents younger than forty; and in the sample from the ten metropolitan areas, there is a substantial overrepresentation of respondents aged

Table A-1.3 Socioeconomic Status and Panel Loss (Per Cent)

Sample	SES Scale (Wave I)					Total	
	Low (0–1)	(2–3)	(4–5)	(6–7)	High (8–9)	Per Cent	N
Washington suburban county:							
Wave I	7	16	28	26	22	99[a]	1,277
Wave III	6	16	26	26	25	99[a]	1,001
Dropouts	12	18	33	26	12	101[a]	276
Detroit inner city:							
Wave I	56	31	11	2	—	100	446
Wave III	57	30	11	2	1	101[a]	350
Dropouts	52	34	10	3	0	101[a]	96
Detroit suburb:							
Wave I	10	25	28	26	11	100	542
Wave III	10	21	31	27	10	99[a]	427
Dropouts	10	37	20	22	11	100	115
Chicago:							
Wave I	32	31	21	13	3	100	252
Wave III	31	32	21	12	3	99[a]	177
Dropouts	33	29	21	15	1	99[a]	75
Ten metropolitan areas:							
Wave I	16	20	20	21	23	100	270
Wave III	11	20	21	21	26	99[a]	208
Dropouts	29	21	14	24	11	99[a]	62
Total sample:							
Wave I	19	22	24	21	15	101[a]	2,787
Wave III	18	21	24	21	17	101[a]	2,163
Dropouts	22	26	24	20	8	100	624

[a] Not 100 per cent because of rounding.

thirty to thirty-nine. In the Detroit suburb, however, there is a slight bias in the opposite direction, with those over fifty being somewhat overrepresented among the dropouts. There appears to be little shift, however, in the total age structure of the sample.

In summary, then, there is a slight tendency for those respondents who were more difficult to interview in the first place—those of low SES, the non-marrieds, and the younger people—to be overrepresented among the dropouts from the panel. These differential dropout rates, however, have only a small effect on the mar-

Table A-1.4 Marital Status and Panel Loss (Per Cent)

Sample	Marital Status (Wave I)			Total	
	Married	Never Married	Widowed, Divorced, Separated	Per Cent	N
Washington suburban county:					
Wave I	84	7	9	100	1,277
Wave III	85	6	9	100	1,001
Dropouts	81	8	11	100	276
Detroit inner city:					
Wave I	60	8	33	101[a]	446
Wave III	61	7	32	100	350
Dropouts	57	12	31	100	96
Detroit suburb:					
Wave I	88	4	7	99[a]	542
Wave III	89	8	4	101[a]	427
Dropouts	86	8	6	100	115
Chicago:					
Wave I	72	16	11	99[a]	252
Wave III	76	15	10	101[a]	177
Dropouts	64	20	16	100	75
Ten metropolitan areas:					
Wave I	73	16	12	101[a]	270
Wave III	76	14	9	99[a]	208
Dropouts	60	21	19	100	62
Total sample:					
Wave I	79	8	13	100	2,787
Wave III	80	7	13	100	2,163
Dropouts	74	11	15	100	624

[a] Not 100 per cent because of rounding.

ginal distributions for the samples. We believe that the biases thus introduced in our panel are not large enough to affect seriously the validity of the relationships found on the basis of the panel study.

PSYCHOLOGICAL CHARACTERISTICS OF NON-RESPONDENTS

Perhaps even more important than the socioeconomic differences is the degree to which some of the principal psychological characteristics with which we are interested affect the cooperation

Table A-1.5   Age and Panel Loss (Per Cent)

Sample	Age (Wave I)					Total	
	Under 30	30–39	40–49	50 and Over	NA	Per Cent	N
Washington suburban county:							
Wave I	27	30	26	17	–	101[a]	1,277
Wave III	26	31	26	17	1	101[a]	1,001
Dropouts	29	29	26	16	–	100	276
Detroit inner city:							
Wave I	16	29	27	27	–	99[a]	446
Wave III	14	28	30	27	1	100	350
Dropouts	22	33	17	28	0	100	96
Detroit suburb:							
Wave I	33	34	21	13	0	100	542
Wave III	33	34	21	12	0	100	427
Dropouts	30	35	20	15	0	100	115
Chicago:							
Wave I	18	29	30	23	–	100	252
Wave III	16	28	29	25	1	99[a]	177
Dropouts	21	28	32	19	0	100	75
Ten metropolitan areas:							
Wave I	23	27	28	21	–	99[a]	270
Wave III	24	23	30	23	0	100	208
Dropouts	19	40	21	18	2	100	62
Total sample:							
Wave I	25	30	26	19	–	100	2,787
Wave III	25	30	26	19	–	100	2,163
Dropouts	26	32	24	18	–	100	624

[a] Not 100 per cent because of rounding.

rate or might otherwise act so as to introduce biases into the panel. Vincent (1964) found in a ten-year follow-up study of a high school senior class that there were personality differences between those who responded to a mail follow-up questionnaire and those who did not. In general, he concluded that there was a tendency for cooperative respondents to have a "nice, conformist" personality. Beilin and Werner (1957) reported on a panel study of psychological adjustment among rural youth. They found that a higher proportion of subjects predicted as likely to be poorly adjusted were lost to the panel and a higher proportion of respondents predicted as likely to be well adjusted were in the interviewed group. In neither of these studies, however, do the biases appear to be of a large order. Since one of the major purposes of our study is to investigate the effects that environmental conditions and change have on psychological well-being, it is particularly important for the validity of the study that there be no significant biases regarding the level of psychological well-being in the panel.

Using data obtained in Wave I on various indicators of psychological well-being, we can compare the characteristics of panel dropouts with those of respondents who were reinterviewed in Wave III. In Table A-1.6 we see no significant differences in degree of reported happiness between the reinterviewed persons and the panel dropouts. There are slight differences from sample to sample, sometimes in the direction of slightly overrepresenting the "very happy," sometimes in the direction of slightly overrepresenting the "not too happy," and sometimes both. It is clear, however, that there is no bias in the panel toward those in the first wave who reported being "very happy" or those who reported being "not too happy."

A similar lack of significant differences in indicators of psychological well-being between panel dropouts and those who were reinterviewed is found in Tables A-1.7, A-1.8, and A-1.9. These tables present the distributions for the Wave I scales—the Affect Balance Scale and the Positive and Negative Affect Scales. We see that, overall, the marginal distribution of the Wave I scores for the Wave III respondents is almost identical to that for the total Wave I respondents. There are a few specific instances of over- or underrepresentation of extremes on the scales, but these differences are

not consistent. They are probably due to the association of these particular scales with certain socioeconomic characteristics that have been noted above.

Tables A-1.10 and A-1.11 present the distributions for two indices, anxiety and social participation, which are related to negative and positive feelings, respectively. Again we see that, overall, the Wave III respondents' scores in Wave I were practically identi-

Table A-1.6 Happiness and Panel Loss (Per Cent)

Sample	Happiness (Wave I Responses)				Total	
	Very Happy	Pretty Happy	Not Too Happy	NA	Per Cent	N
Washington suburban county:						
Wave I	35	56	8	1	100	1,277
Wave III	35	56	8	1	100	1,001
Dropouts	38	54	8	–	100	276
Detroit inner city:						
Wave I	17	56	27	–	100	446
Wave III	15	58	26	–	99[a]	350
Dropouts	22	48	29	1	100	96
Detroit suburb:						
Wave I	36	57	7	0	100	542
Wave III	36	57	7	0	100	427
Dropouts	36	55	9	0	100	115
Chicago:						
Wave I	31	50	19	–	100	252
Wave III	32	48	20	0	100	177
Dropouts	27	57	15	1	100	75
Ten metropolitan areas:						
Wave I	33	59	8	0	100	270
Wave III	33	59	8	0	100	208
Dropouts	31	60	10	0	101	62
Total sample:						
Wave I	31	56	12	–	99[a]	2,787
Wave III	31	56	12	–	99[a]	2,163
Dropouts	33	54	12	–	99[a]	624

[a] Not 100 per cent because of rounding.

cal with those of all Wave I respondents. For the anxiety index, there is practically no difference between the distribution of Wave I anxiety scores for the dropouts and for those who responded in the third wave of the panel. There is, however, some tendency for those who are low on the social participation index to be overrepresented among the dropouts, although even here it is not consistent across all samples. The bias is particularly marked in the case

Table A-1.7   Affect Balance Scale and Panel Loss (Per Cent)

Sample	Affect Balance Scale (Wave I Score)						Total	
	Low (1–3)	(4)	(5)	(6)	High (7–9)	NA	Per Cent	N
Washington suburban county:								
Wave I	13	10	21	22	33	2	101ᵃ	1,277
Wave III	13	10	21	22	32	2	100	1,001
Dropouts	11	9	22	21	36	1	100	276
Detroit inner city:								
Wave I	28	19	17	16	16	4	100	446
Wave III	28	18	16	16	18	3	99ᵃ	350
Dropouts	26	23	21	17	9	4	100	96
Detroit suburb:								
Wave I	16	16	22	18	28	1	101ᵃ	542
Wave III	14	16	21	20	28	1	100	427
Dropouts	21	16	24	14	25	0	100	115
Chicago:								
Wave I	19	17	24	15	23	2	100	252
Wave III	20	18	25	12	24	1	100	177
Dropouts	16	15	23	22	21	4	101ᵃ	75
Ten metropolitan areas:								
Wave I	12	14	22	18	31	2	99ᵃ	270
Wave III	11	14	23	18	32	2	100	208
Dropouts	16	15	19	18	31	2	101ᵃ	62
Total sample:								
Wave I	16	14	21	19	28	2	100	2,787
Wave III	16	14	21	19	28	2	100	2,163
Dropouts	16	14	22	19	27	2	100	624

ᵃ Not 100 per cent because of rounding.

of the sample from the ten metropolitan areas, where the dropouts were considerably more likely to be low on social participation. This difference apparently results from the fact that this sample has the greatest concentration of low SES respondents among the dropouts. The social participation index has been shown to have a substantial correlation with the SES index.

It is possible that changes in any of the measures of psychologi-

Table A-1.8 Positive Affect Scale and Panel Loss (Per Cent)

| Sample | Positive Affect Scale (Wave I Score) | | | | | | Total | |
	Low (0–1)	(2)	(3)	(4)	High (5)	NA	Per Cent	N
Washington suburban county:								
Wave I	13	17	26	26	17	1	100	1,277
Wave III	12	16	27	26	17	2	100	1,001
Dropouts	17	18	24	26	16	–	101[a]	276
Detroit inner city:								
Wave I	26	22	30	15	4	3	100	446
Wave III	24	23	31	15	5	3	101[a]	350
Dropouts	31	22	25	16	3	3	100	96
Detroit suburb:								
Wave I	17	17	25	23	18	1	100	542
Wave III	14	16	26	24	18	1	99[a]	427
Dropouts	24	18	20	17	20	0	99[a]	115
Chicago:								
Wave I	24	22	21	18	12	2	99[a]	252
Wave III	22	23	22	18	14	1	100	177
Dropouts	31	19	20	19	8	4	101[a]	75
Ten metropolitan areas:								
Wave I	13	17	24	26	18	2	100	270
Wave III	14	17	21	27	19	2	100	208
Dropouts	11	16	34	23	16	0	100	62
Total sample:								
Wave I	17	18	25	23	15	1	99[a]	2,787
Wave III	15	18	26	23	15	2	99[a]	2,163
Dropouts	22	18	24	21	14	1	100	624

[a] Not 100 per cent because of rounding.

cal well-being would affect the willingness to be interviewed again in the third wave, but we have no data on this. On the basis of the data we do have, we would conclude that there are no substantial biases in the panel regarding the psychological characteristics of the respondents we are particularly interested in studying. The small differences that do exist apparently result from the slight biases in socioeconomic characteristics reported above.

Table A-1.9 Negative Affect Scale and Panel Loss (Per Cent)

Sample	Negative Affect Scale (Wave I Score)						Total	
	Low (0)	(1–2)	(3–4)	(5–6)	High (7–9)	NA	Per Cent	N
Washington suburban county:								
Wave I	29	27	18	14	12	1	101[a]	1,277
Wave III	28	26	18	14	12	1	99[a]	1,001
Dropouts	36	28	16	10	9	1	100	276
Detroit inner city:								
Wave I	26	20	17	17	19	2	101[a]	446
Wave III	27	17	17	18	18	2	99[a]	350
Dropouts	19	30	15	11	22	3	100	96
Detroit suburb:								
Wave I	22	27	19	16	16	–	100	542
Wave III	23	26	18	17	16	1	101[a]	427
Dropouts	21	28	24	10	17	0	100	115
Chicago:								
Wave I	27	27	18	15	12	1	100	252
Wave III	27	24	19	16	14	1	101[a]	177
Dropouts	28	36	16	12	7	1	100	75
Ten metropolitan areas:								
Wave I	30	23	16	13	17	–	99[a]	270
Wave III	31	24	16	13	16	0	100	208
Dropouts	29	23	16	10	21	2	101[a]	62
Total sample:								
Wave I	27	25	18	14	14	1	99[a]	2,787
Wave III	27	25	18	16	14	1	101[a]	2,163
Dropouts	29	29	17	10	13	1	99[a]	624

[a] Not 100 per cent because of rounding.

Table A-1.10 Anxiety Index and Panel Loss (Per Cent)

| Sample | Anxiety Index (Wave I Score) | | | | | | Total | |
	Low (0)	(1)	(2)	(3)	High (4–9)	NA	Per Cent	N
Washington suburban county:								
Wave I	24	25	19	16	16	1	101ᵃ	1,277
Wave III	22	25	20	16	16	1	100	1,001
Dropouts	29	25	17	14	14	–	99ᵃ	276
Detroit inner city:								
Wave I	23	19	17	15	25	1	100	446
Wave III	22	20	17	14	26	1	100	350
Dropouts	26	16	20	19	19	1	101ᵃ	96
Detroit suburb:								
Wave I	19	23	21	15	22	–	100	542
Wave III	18	23	22	15	21	–	99ᵃ	427
Dropouts	19	25	16	12	27	0	99ᵃ	115
Chicago:								
Wave I	13	23	17	24	21	2	100	252
Wave III	12	24	19	22	20	3	100	177
Dropouts	17	19	13	28	23	0	100	75
Ten metropolitan areas:								
Wave I	25	20	22	16	16	1	100	270
Wave III	26	21	22	15	15	1	100	208
Dropouts	24	18	21	19	16	2	100	62
Total sample:								
Wave I	22	23	19	16	19	1	100	2,787
Wave III	21	23	20	16	19	1	100	2,163
Dropouts	25	22	17	17	19	–	100	624

ᵃ Not 100 per cent because of rounding.

The Structure of Psychological Well–Being

Table A-1.11 Social Participation Index and Panel Loss (Per Cent)

Sample	Social Participation Index (Wave I Score)					Total	
	Low (0–1)	(2)	(3)	(4)	High (5–6)	Per Cent	N
Washington suburban county:							
Wave I	23	20	23	20	14	100	1,277
Wave III	22	19	23	21	15	100	1,001
Dropouts	27	22	24	17	10	100	276
Detroit inner city:							
Wave I	46	23	17	9	4	99[a]	446
Wave III	44	23	18	10	5	100	350
Dropouts	52	23	15	7	3	100	96
Detroit suburb:							
Wave I	24	20	24	20	13	101[a]	542
Wave III	23	20	23	19	15	100	427
Dropouts	28	18	26	20	8	100	115
Chicago:							
Wave I	43	25	15	10	6	99[a]	252
Wave III	44	24	16	10	6	100	177
Dropouts	40	27	15	12	7	101[a]	75
Ten metropolitan areas:							
Wave I	21	17	22	22	17	99[a]	270
Wave III	18	15	24	22	21	100	208
Dropouts	31	26	16	23	5	101[a]	62
Total sample:							
Wave I	28	21	22	17	12	100	2,787
Wave III	27	20	22	18	13	100	2,163
Dropouts	33	23	21	16	8	101[a]	624

[a] Not 100 per cent because of rounding.

Appendix 2

Ridit Analysis

Ridit analysis is designed to aid in the analysis of data involving variables that are more than dichotomous classifications and are ordered, but that do not reach the standards of refined measurement systems such as those meeting the criteria for equal-interval or ratio scales. It is a particularly useful form of statistical analysis for items involving self-ratings on a three-or-more-point scale (such as "very happy," "pretty happy," or "not to happy"), indices made up of a number of items (such as the Positive and Negative Affect Scales), and rating scales based on global ratings (such as mental health rating scales). For a more detailed discussion of the development and use of ridit analysis, the interested reader is referred to Bross and Feldman (1956), Bross (1958), and Langner and Michael (1963).

The term "ridit" was chosen as an analogy to a family of transformations including such things as "logits" and "probits." The term stands for "Relative to an Identified Distribution" and is a probability transformation based on some empirical distribution that is taken as a reference class. The ridit is a number assigned to a particular category of the variable that is equal to the proportion of individuals in the reference class who have a lower score on that variable, plus one-half of the proportion of individuals in the category itself. Thus, the ridit is a weight assigned to a response category that reflects the probability of that category, or a lower one, appearing in the reference distribution. A ridit has a range that approaches the limits of .000 at one end and 1.000 at the other.

Once the ridit values for each category of the dependent variables have been computed, individual scores are transformed into the ridit value for the dependent variable. In ridit analysis, we compute an average ridit value for a class rather than the proportion

of respondents giving each of the responses on the dependent variable. Thus, for example, suppose that the dependent variable we are interested in is our overall happiness question, in which the response categories are "very happy," "pretty happy," and "not too happy." If we compute the ridit values for these categories using the ten metropolitan areas sample as our identified reference distribution, we would calculate a ridit value of .837 for "very happy," .378 for "pretty happy," and .041 for "not too happy." In order to calculate the average ridit for a class of individuals, such as men, we would simply multiply the number of men who responded that they were "very happy" by .837, add to that the number of men who reported being "pretty happy" multiplied by .378, then add to that the number of men reporting that they were "not too happy" multiplied by .041, and finally divide the whole sum by the total number in the class, i.e., the total number of men. In Table A-2.1 we have carried out an illustrative calculation for the ridit values of the classes of men and women, using a ridit value calculated for the overall happiness question.

We might note in passing that in our analyses we did not report ridit values for the happiness questions. Since these questions had

Table A-2.1 Illustrative Example of Calculation of Average Ridit Value for Classes

Response Category	Ridit Value	Frequency Distribution	Ridit × Frequency
		Men	
Not too happy	.041	151	6.191
Pretty happy	.378	715	270.270
Very happy	.837	389	325.593
Total		1,255	602.054
Average ridit			.48
		Women	
Not too happy	.041	183	7.503
Pretty happy	.378	837	316.386
Very happy	.837	502	420.174
Total		1,522	743.963
Average ridit			.49

only three response categories, we did not feel that the loss of information achieved by treating them dichotomously ("very happy" vs. less than "very happy") was serious enough to warrant the added effort of computing the ridit values. However, when scales have from 5 to 9 points, such as our Positive and Negative Affect Scales and Affect Balance Scale, there is a serious loss of information if the scales are treated dichotomously.

The average ridit value is the estimate of the chances that an individual in that class is "better off," that is, will have a higher score on the dependent variable, than an individual from the identified reference class. Or to put it another way, if we picked an individual at random from the class under consideration, the average ridit for that class is the probability that he would have a higher score on the dependent variable than would an individual picked at random from the reference class. Thus, an average ridit of .48 for men says that the probabilities are .48 that a man chosen at random from among our respondents would report that he is happier than would a respondent picked at random from our ten metropolitan areas sample. Thus, men as a group are only very slightly less likely to have higher scores on happiness than is our reference class that includes both men and women.

The reader might note that the average ridit values for both classes are less than .50, the average for the reference class. This results from the fact that the distribution of responses to the happiness question for the reference class is skewed more toward the high end than is the distribution for the five samples combined. The greater proportion of "not too happy" people in the Detroit inner-city and Chicago samples pulls the combined sample mean (and hence the average ridit value) downward.

For our particular study, the more interesting comparisons have been between classes rather than between a particular class and the reference class. Thus, in our analysis we have been more concerned with the differences between men and women, between those with high and low education, those with good and bad jobs, etc., than we have with comparing any particular set of individuals with those in the random sample of the ten largest metropolitan districts. When comparing two classes, the difference between the average ridit values for each of the classes plus .50 equals the

probability that a randomly selected individual in the first class will have a higher score than an individual selected randomly from the second class. Thus, if the average ridit value on the happiness question is .48 for men and .49 for women, we take the differences between these two values, i.e., .01, add this to .50, and get .51, which then is the probability that a randomly selected woman among our respondents would have a higher score on the happiness question than would a randomly selected man. Again we see that there are no substantial differences between men and women, as we noted in Chapter 3.

Since the average ridit values are statistics and, like all statistics, are subject to sampling error, it is well to consider the question of confidence limits on these probability statements. Bross has developed an estimate of the 95 per cent confidence limits on ridits that are roughly accurate if the ridits in question do not deviate too far from .500, that is, in the range of about .650 to .350. The confidence interval can be obtained by using the following formula: ridit value $\pm [1/\sqrt{(3N)}]$. The confidence errors for different sizes of N appear in Table A-2.2, which is reprinted from Langner and Michael (1963, p. 96) and has been used throughout this monograph in calculating the statistical significance of differences in average ridit values. Differences between groups were considered statistically significant when the upper bound of the confidence interval for the lower ridit value did not overlap the lower bound of the confidence interval for the higher ridit value. Thus, in our comparison between men and women, the upper bound of the confidence interval for men would be .50 (.48 + .02), while the lower bound for women would be .48 (.49 − .01). Since these two limits overlap, we would conclude that there is no statistically significant difference between the ridit values for men and women on the happiness question.

CALCULATION OF RIDIT VALUES

As an example of the method for calculating the ridit values for one of the dependent variables used, in Table A-2.3 we present in detail the scheme for computing the ridit values for the Affect Balance Scale (ABS). In Column A we give the frequency distribution (marginals) for each of the ABS scores for the 264 people

in the ten metropolitan areas sample that we are using as our identified reference distribution. Column B is simply the frequencies in Column A divided by 2 so that we have one-half of Column A. Column C is a cumulative frequency count based on Column A. Column D, which is the sum of Columns B and C, gives us the needed cumulative frequencies plus one-half the frequency of the particular category of interest. Finally, in Column E, the ridit value is computed by dividing the entry in Column D by N, the total number of people in this sample who answered all the affect questions (264). The values in Column E are the ridit values for the particular categories of the ABS scores and are used as the transformation values that replace each individual's raw ABS score. Column F is a check column, which is obtained by multiplying

Table A-2.2 Width of 95 Per Cent[a] Confidence Semi-Intervals[b] of Ridits for Sample Sizes 2 through 13,333[c]

Number in Sample	Ridit Semi-Interval	Number in Sample	Ridit Semi-Interval
2	.41	19 to 21	.13
3	.33	22 to 25	.12
4	.29	26 to 30	.11
5	.26	31 to 36	.10
6	.24	37 to 46	.09
7	.22	47 to 59	.08
8	.20	60 to 78	.07
9	.19	79 to 110	.06
10	.18	111 to 164	.05
11 to 12	.17	165 to 272	.04
13	.16	273 to 533	.03
14 to 15	.15	534 to 1481	.02
16 to 18	.14	1482 to 13,333	.01

[a] Commonly referred to as the "5 Per Cent Level" of Confidence (.05). In the text it is suggested that the one per cent level is approximated in the actual process of comparing the ridits of two groups.

[b] The length of the confidence interval is two semi-intervals. For example, in a group of 1000 respondents the average ridit turns out to be .60. The semi-interval (one-half the width of the interval) for 1000 cases is .02. If the semi-interval is added to the average ridit (.62), we have the upper limit of the interval. If it is subtracted (.58), we have the lower limit. The interval itself is .04.

[c] Reprinted with permission of The Macmillan Company from *Life Stress and Mental Health* by Thomas Langner and Stanley Michael. © by The Free Press of Glencoe, a Division of The Macmillan Company, 1963.

Table A-2.3 Sample Ridit Computation, for Affect Balance Scale

Affect Balance Scale Score	A Frequency	B ½ Column A	C Cumulative Frequency	D Columns B + C	E Ridit Value $\left(\frac{\text{Column D}}{N}\right)$	F Check (Column A × Column E)
1	4	2.0	0	2.0	.008	.032
2	11	5.5	4	9.5	.036	.396
3	17	8.5	15	23.5	.089	1.513
4	39	19.5	32	51.5	.195	7.605
5	60	30.0	71	101.0	.383	22.980
6	48	24.0	131	155.0	.587	28.176
7	40	20.0	179	199.0	.754	30.160
8	33	16.5	219	235.5	.892	29.436
9	12	6.0	252	258.0	.977	11.724
Total	264		264			132.022/264 = .50
Average ridit						.50

Column A by Column E. This is the computation one performs in order to calculate the average ridit for a particular class of interest and is a check in this instance because the ridit value for the reference class should check out to .50.

While we shall not present in detail the computations for each of the other ridit values used in this monograph, Table A-2.4 gives

Table A-2.4 Ridit Values for Major Affect Scales

Positive Affect Scale		Negative Affect Scale	
Score	Ridit Value	Score	Ridit Value
0	.024	0	.152
1	.090	1	.424
2	.218	2	.624
3	.424	3	.768
4	.649	4	.892
5	.876	5	.978

Positive Affect Change Score		Negative Affect Change Score	
Score	Ridit Value	Score	Ridit Value
− 4	.005	− 4	.005
− 3	.025	− 3	.034
− 2	.082	− 2	.104
− 1	.220	− 1	.258
0	.477	0	.548
+ 1	.752	+ 1	.804
+ 2	.920	+ 2	.925
+ 3	.985	+ 3	.981
+ 4	.997	+ 4	.995

Affect Balance Scale Change Score	
Score	Ridit Value
− 6	.003
− 5	.010
− 4	.025
− 3	.055
− 2	.126
− 1	.271
0	.475
+ 1	.676
+ 2	.832
+ 3	.927
+ 4	.975
+ 5	.992
+ 6	.997

the ridit values for each category of the major dependent variables that we discuss so that other investigators may use them to compare their results with ours if they should wish to do so. We have included not only the ridit values for the major scales but also the ridits of the change scores in case they should be of interest to others. One should remember when using these ridit values, however, that they are based on a reference class consisting of a random sample of individuals from the ten largest metropolitan areas in the United States and are not based on a probability sample of the entire United States.

Appendix 3

The Questionnaires

In this appendix, we present the questionnaires, in whole or in part, for the four waves of interviewing.

The questionnaire for Wave I is printed here in its entirety. The interviewing on this wave was conducted in January and February, 1963, for the entire sample.

For Wave III, only those parts are presented that differed from the Wave I questionnaire because of additions or significant variations. We have not indicated questions that were deleted, such as background items that would not have changed. In some cases, questions with wording variations reflecting the time interval between interviews (i.e., "during the past four months" and "since the last interview") have not been included since the basic questions remained the same in all waves.

The interviewing for Wave III, which was conducted in October and November, 1963, included the entire sample.

Since the major part of the analysis discussed in this monograph was derived from Waves I and III, we have not included any excerpts from the questionnaires for Waves II and IV. The interviewing on these two waves was carried out only in the Detroit suburban sample in June and July, 1963, and January and February, 1964. The questions varied little from those of Waves I and III. The major addition to the Wave II questionnaire was the listing of marriage sociability and companionship items, which also appeared as F4 in the Wave III questionnaire.

WAVE I QUESTIONNAIRE

NORC
SURVEY 458
1/63
CONFIDENTIAL

NATIONAL OPINION RESEARCH CENTER

UNIVERSITY OF CHICAGO

PERSONAL INTERVIEW

Segment Number _____   Household Number _____
                                                  (two digits)

RESPONDENT'S NAME _____

STREET ADDRESS _____ TELEPHONE NUMBER _____

CITY _____ STATE _____

INTRODUCTION

Hello, I'm _____ from the National Opinion Research Center of
the University of Chicago. We're conducting a national study of fam-
ily activities of modern America.

In order to determine which person in your household I'm to interview
I have to list the names of all persons who live here. First, who are
the adults who live here--from oldest to youngest?

HOUSEHOLD ENUMERATION AND SCREENING FORM   DECK 01

How many people are living in this household?   (BE SURE TO INCLUDE ALL CHILDREN
LIVING IN THE HOUSEHOLD, PEOPLE TEMPORARILY AWAY, ROOMERS, ETC.)

A.   What is the name of the oldest person?   The next oldest person?   (ENTER NAMES
     IN COLUMN A OF THE HOUSEHOLD ENUMERATION TABLE.)

B.   What is (his/her) relation to the head?   (ENTER RELATION IN COLUMN B.)

C.   (ENTER M FOR MALE AND F FOR FEMALE IN COLUMN C.)

D.   How old was (he/she) on (his/her) last birthday?   (ENTER IN COLUMN D.)

                    ANSWER FOR EACH PERSON IN HOUSEHOLD.

		(A) Name	(B) Relation to House- hold Head	(C) Sex	(D) Age at Last Birthday	(E) Indicate Respondent by
BOX A (AGE 60 AND OVER)	1					
	2					
	3					
	4					
BOX B (AGE 21 TO 59)	1					
	2					
	3					
	4					
	5					
	6					
BOX C (UNDER 21 YEARS OF AGE)	1					
	2					
	3					
	4					
	5					
	6					

S A M P L I N G   T A B L E

AND YOUR ASSIGNMENT SHEET CONTAINED ↓ THE LETTER....	ONE	TWO	THREE	FOUR	FIVE	SIX OR MORE
A, THEN INTERVIEW ADULT ON LINE.....	1	2	3	1	5	1
B, THEN INTERVIEW ADULT ON LINE	1	1	2	2	4	2
C, THEN INTERVIEW ADULT ON LINE.....	1	2	1	3	3	3
D, THEN INTERVIEW ADULT ON LINE.....	1	2	3	4	2	4
E, THEN INTERVIEW ADULT ON LINE.....	1	1	2	4	1	5
F, THEN INTERVIEW ADULT ON LINE.....	1	1	1	2	1	6

IF THE NUMBER OF ADULTS LISTED IN BOX B ABOVE is...

I must interview the person listed on line _____ in Enumeration Box B.

His/Her name is _____

| 6- | 7- | 8- | 9- | 10- | 11- | 12- | 13- | 14- | 15- | 16- | 17- | 18- | 19- |

DECK 01

The Interview

P 1. Thinking back over the last year--1962--what are the events of the year
which have had the greatest effect on you and your family--for better or
worse?

A. What are the best things that happened during the year?

20-
21-

B. What are the worst things that happened?

22-
23-

P 2. Thinking of visits, telephone calls, or letters, were you in touch with any
relatives during the past two weeks (not counting any who live with you)?

Yes 24- 1*
No X

*IF YES:

A. About how many families?

25- _____

B. How many of those families do you see or visit
regularly--say every week or so?

26- _____

P 3. Now how about friends other than relatives? During the past few weeks how
many times did you get together with friends--I mean things like going out
together or visiting in each others' homes?

Not at all . . . . . .27- X
Once 1*
Twice 2*
Three times 3*
Four times 4*
Five or more times . 5*

*IF GOT
TOGETHER
WITH
FRIENDS:

A. About how many different friends was that?

28- _____

DECK 01

P 4. On the average during the past few weeks, how many times a day did you
chat with friends on the telephone?

None	29-	0
Less than once a day .		1
Once a day		2
Twice a day		3
Three times a day . .		4
Four or more		5

P 5. In recent months have you made any new friends?

Yes	30-	1
No		2

P 6. In recent months have you lost any friends or become less friendly with
anyone?

Yes	31-	4
No		5

P 7. Do most of your friends know each other?

Yes	32-	7
Some do, some don't .		8
No		9

P 8. Thinking of people including relatives whom you consider really good
friends--that is people you feel free to talk with about personal
things--about how many such friends would you say you have?

33- _____

P 9. Did you meet àny people during the past few weeks, other than those you
meet in the course of your work, that you never met before?

Yes	34-	1*
No		X

*IF YES:	A. About how many?
	35- _____

DECK 01

P10. During the past few weeks what was the furthest distance you went from
your home other than going to work? (Approximate number of miles <u>one</u>
<u>way</u>.)

Did not leave house 36-	0
Less than 1 mile	1
1 to less than 5 miles . . .	2
5 to less than 25 miles . .	3*
25 to less than 100 miles .	4*
100 to less than 200 miles .	5*
200 or more miles	6*

*IF 5 OR
MORE
MILES:

A.   How often do you usually go that far?

Almost every day 37-	1
Several times per week . . .	2
About once a week	3
Several times per month . .	4
About once a month	5
Several times per year . . .	6
About once a year	7
Less than once a year . . .	8

P11. How many organizations such as church and school groups, labor unions,
or social, civic, and fraternal clubs do you belong to?

None 38-	X
One	0*
Two	1*
Three	2*
Four or more	3*

*IF BELONGS
TO ORGAN-
IZATIONS:

A.   How many do you take an active part in?

None 39-	5
One	6
Two	7
Three	8
Four or more	9

DECK 01

P12. How often have you attended church services or other church-sponsored
events during the last month?

40 - _____ times

P13. What is your religious preference?

None 41- 1

Protestant 2

Catholic 3

Jewish 4

Other (Specify)

_____ 5

P14. How religious would you say you are--<u>very religious</u>, <u>somewhat religious</u>,
<u>not very religious</u>, or <u>not at all religious</u>?

Very religious 42- 1

Somewhat religious 2

Not very religious 3

Not at all religious 4

P15. How interested are you in what goes on in the world today? For instance,
do you follow the international news <u>very closely</u>, <u>fairly closely</u>, or <u>not
too closely</u>?

Very closely 43- 7

Fairly closely 8

Not too closely 9

DECK 01

P16. What about local news--the things that happen here in your city. Do
you follow local news <u>very closely, fairly closely</u> or <u>not too closely</u>?

Very closely 44- 1

Fairly closely   2

Not too closely   3

P17. Do you ever get as worked up by something that happens in the news as
you do by something that happens in your personal life?

Yes 45- 1*

No   X

*IF YES: | A. Does this happen often or only occasionally?

Often 46- 4

Occasionally   5

P18. During the Cuban crisis last fall, some people were very upset and
tense, while others were not. Thinking back, how did you feel? Were
you <u>upset and tense</u>, were you <u>somewhat bothered</u>, or <u>weren't you very
bothered by it</u>?

Upset and tense 47- 7

Somewhat bothered   8

Weren't very bothered . .   9

P19. About how many hours a day on the average did you watch TV in the past
few weeks?

48- ____ hours/day

P20. Suppose your TV set was broken for a few days. Would you feel <u>pretty
bad</u> about not being able to watch it, would it <u>bother you a little</u>, or
would you <u>not be bothered at all</u>?

Would feel pretty bad . . 49- 6

Would be bothered a little   7

Would not be bothered at all   8

Don't own set   9

DECK 02

Section H

1-	2-	3-	4-	5-

H 1. Everybody these days has some things he worries about--some big and some small. What about the big things? What would you say has worried you or been on your mind most <u>in the past few weeks</u>?

20-
21-

H 2. Now what about small things? What has bothered you or been on your mind most <u>in the past few weeks</u>?

22-
23-

H 3. In general, do you worry <u>a lot</u> or <u>not very much</u>?

A lot 24- 1

Not very much 2

Never worries 3

H 4. Would you say you worry more now than you used to or not as much as you used to?

More 25- 6

About the same 7

Not as much 8

Never worries 9

DECK 02

H 5. During the past few weeks, have you worried about---

			Yes	No
A.	Not having enough money?	26-	3	2
B.	How about-- financial debts?	27-	6	5
C.	How things are going at (work [at your husband's work])?	28-	9	8
D.	Getting along with your (wife/husband/girl friend/ boy friend)?	29-	3	2
E.	Moving ahead in the world?	30-	6	5
F.	Your children?	31-	9	8
G.	Sexual problems?	32-	3	2
H.	People you have trouble with?	33-	6	5
I.	Your health?	34-	9	8
J.	Things that happen in your neighborhood?	35-	3	2
K.	The world situation?	36-	6	5
L.	Growing old?	37-	9	8

H 6. Now let's talk about something else. We are interested in the way people are feeling these days.

During the past few weeks, did you ever feel---

			Yes	No
A.	Particularly excited or interested in something?	38-	3	2
B.	Did you ever feel so restless that you couldn't sit long in a chair?	39-	6	5
C.	Proud because someone complimented you on something you had done?	40-	9	8
D.	Very lonely or remote from other people?	41-	3	2
E.	Pleased about having accomplished something?	42-	6	5
F.	Bored?	43-	9	8
G.	On top of the world?	44-	3	2
H.	Depressed or very unhappy?	45-	6	5
I.	That things were going your way?	46-	9	8
J.	Upset because someone criticized you?	47-	3	2

DECK 02

H 7. In the past few weeks, did anything happen to make you angry?

| | | Yes . | 48- | 1* |
| | | No . | | X |

| *IF YES: | A. What happened? | | |
| | | 49- | |

H 8. In the past few weeks were you treated badly by anyone?

| | | Yes . | 50- | 1* |
| | | No . | | X |

| *IF YES: | A. What happened? | | |
| | | 51- | |

H 9. During the past few weeks did <u>you</u> treat anyone badly?

| | | Yes . | 52- | 1* |
| | | No . | | X |

| *IF YES: | A. What happened? | | |
| | | 53- | |

H10. Are you the kind of person that gets angry easily or does it take a
lot to make you angry?

Gets angry easily	54- 1
Takes a lot	2
Never gets angry	3

H11. Now we want to shift from problems to things you enjoy. Here is a
list of things.   (HAND RESPONDENT CARD #1.)

       (1) The work you do on your job.
       (2) Taking care of the house.
       (3) Getting together or doing things with friends.
       (4) Participating in clubs or organizations you belong to.
       (5) Your recreational activities or hobbies.
       (6) The time you spent with your (wife/husband/girl friend/boy friend).
       (7) Doing things with your children.
       (8) The time you spent alone.

  A. Please tell me <u>which one</u> has given you the <u>most</u> enjoyment in the past
few weeks?

                                      <u>Most</u> enjoyed . 55- _____
                                                 (Write in no.)

  B. Which one on the list did you enjoy <u>next most</u> during the past few weeks?

                              Enjoyed <u>next most</u> . . 56- _____
                                                 (Write in no.)

  C. Which one did you enjoy <u>least</u> in the past few weeks?

                                Enjoyed <u>least</u> . . . . 57- _____
                                                  (Write in no.)

DECK 02

H12. Taken all together, how would you say things are these days--would
you say that you are <u>very happy</u>, <u>pretty happy</u>, or <u>not too happy</u>?

Very happy 58- 1

Pretty happy 2

Not too happy 3

H13. Compared with your life today, how were things four or five years
ago? Were things <u>happier</u> for you then or <u>not quite as happy</u> as
now?

Happier then 59- 5

Not as happy then . . 6

About the same 7

H14. Think of how your life is going now. Do you want it to <u>continue in
much the same way as it's going now</u>; do you wish you could <u>change
some parts of it</u>; or do you wish you could <u>change many parts</u> of it?

Continue much the same way . . . 60- 1

Change some parts 2

Change many parts 3

H15. When you think of the things you want from life, would you say that
you're <u>doing pretty well</u> or you're <u>not doing too well</u> now in getting
the things you want?

Doing pretty well now 61- 5

Not doing too well now 6

DECK 03

1-　　2-　　3-　　4-　　5-

Now I'd like to ask you a few questions about your health.

H16.　Were you sick at any time during the past few weeks?

Yes 20- 1*

No . . . .　　X

*IF YES:	A. Did it cause you to cut down on your usual activities?
	Yes 21- 3
	No . . . .　　4

H17.　Do you have any long-standing physical or health trouble?

Yes 22- 1*

No . . . .　　X

*IF YES:	A. Does this keep you from doing any of the things you might like to do?
	Yes 23- 3
	No . . . .　　4

H18.　Was anyone in your household other than you sick in the past few weeks?

Yes 24- 1*

No . . . .　　X

*IF YES:	A. Did this cause you to cut down on your usual activities?
	Yes 25- 3
	No . . . .　　4

Deck 03

H19. I am going to read you a list of different troubles or complaints
people sometimes have. For each one please tell me whether or not
you were bothered by such a complaint during the last few weeks.

			Yes	No
A.	Common cold or Flu	26-	3	2
B.	Dizziness	27-	6	5
C.	General aches and pains	28-	9	8
D.	Hands sweat and feel damp and clammy	29-	3	2
E.	Headaches	30-	6	5
F.	Muscle twitches or trembling	31-	9	8
G.	Nervousness or tenseness	32-	3	2
H.	Rapid heart beat	33-	6	5
I.	Shortness of breath when not exercising	34-	9	8
J.	Skin rashes	35-	3	2
K.	Upset stomach	36-	6	5

H20. When you are sick, is there one specific doctor that you usually call?

Yes 37- 1*

No   X

*IF YES: A. How long have you been going to him?

Less than 6 months 38- 3

6 months to less than 1 year   4

1 - 2 years   5

3 - 5 years   6

More than 5 years   7

H21. Do you smoke?

                             Yes 39- 1*

                             No   X

*IF YES: A. Do you consider yourself a light, moderate or
heavy smoker?

                             Light 40- 3

                             Moderate   4

                             Heavy   5

B. During the past few weeks have you been smoking
more or less than you normally do?

                             More 41- 7

                             Same   8

                             Less   9

H22. Do you ever take a drink (beer, whiskey, or any other alcoholic drink)?

                             Yes 42- 1*

                             No   X

*IF YES: A. About how often on the average?

                     Less than once a week . . . 43- 3

                     Once a week   4

                     2 - 6 times a week   5

                     Every day   6

                     More than once a day   7

B. During the past few weeks have you been drinking
more or less than you normally do?

                             More 44- 1

                             Same   2

                             Less   3

H23. During the past few weeks what time did you usually go to bed?

                                              45-

H24. During the past few weeks what time did you usually get up?

                                              46-

H25. Was the amount of sleep you got during the past few weeks more
or less than usual?

                             More 47- 1

                             Same   2

                             Less   3

DECK 03

H26. During the past few weeks did you have any trouble getting to sleep
at night?

Yes 48- 5

No 6

H27. Did you have any trouble getting up in the morning?

Yes 49- 8

No 9

H28. Compared with your normal feelings, would you say that you had more
energy or less energy during the past few weeks?

More 50- 1

Same 2

Less 3

H29. In general do you have enough energy to do the things that you would
like to do?

Yes 51- 5

No 6

H30. Have you ever felt that you were going to have a nervous breakdown?

Yes 52- 1*

No X

*IF YES:	A. Have you felt this more than once?
	Yes 53- 3
	No 4

H31. Have you ever consulted a doctor, psychiatrist, psychologist, or
anyone else in connection with a nervous or emotional problem?

Yes 54- 6

No 7

H32. Has anyone in your family other than you ever consulted a doctor,
psychiatrist, psychologist, or anyone else in connection with a
nervous or emotional problem?

Yes 55- 1*

No X

*IF YES:	A. Who in your family was that?
	Spouse 56- 3
	Child 4
	Parent 5
	Parent-in-law . . . 6
	Other (Specify)
	_____ 7

DECK 05

Section F

1-	2-	3-	4-	5-

Now I'd like to ask you about your family.

F 1.   What is your marital status?

Married . . . . 20- 1* ASK A,B

Married, spouse absent .   2* ASK A,B

Separated . . . .   3# ASK C

Divorced . . . .   4# ASK C

Widowed . . . .   5# ASK C

Never married   6   SKIP TO F12

*IF MARRIED:	A. How long have you been married? Less than 1 year . . . 21- 0 1 - 2 years . . . . . 1 3 - 5 years . . . . . 2 6 - 10 years 3 More than 10 years . . 4
	B. Is this your first marriage or were you married before? First marriage . . . . 22- 6 Married more than once 7
#IF DIVORCED, SEPARATED, OR WIDOWED:	C. How long have you been (divorced/separated/widowed)? Less than 1 year . . . 23- 0 1 - 2 years . . . . . 1 3 - 5 years . . . . . 2 6 - 10 years . . . . . 3 More than 10 years . . 4

F 2.   How many children do you have?

24- _____

FOR <u>MARRIED</u>, CONTINUE WITH Q. F 3.

FOR <u>DIVORCED</u>, <u>SEPARATED</u>, OR <u>WIDOWED</u>:

     With children living in household, SKIP TO F 9.
     With children but none living in household, SKIP TO F10.
     With no children at all, SKIP TO F12.

DECK 05

F 3. On the whole, would you say that you spend <u>quite a lot of time</u>, <u>a moderate amount of time</u>, or <u>relatively little time</u> doing things to-gether with your (wife/husband)?

Quite a lot 25- 1

Moderate amount . . .   2

Little time   3

F 4. Generally speaking, do you tell your (wife/husband) about what went on during your day?

Always 26- 5

Usually   6

About half the time .   7

Seldom   8

Never   9

F 5. What about your (wife/husband)? Does (she/he) usually tell you what went on during (her/his) day?

Always 27- 1

Usually   2

About half the time .   3

Seldom   4

Never   5

F 6. I am going to read you some things about which husbands and wives sometimes agree and sometimes disagree. Would you tell me which ones caused differences of opinion or were problems in your mar-riage <u>during the past few weeks</u>?

First, how about---

		Yes	No
A.	Time spent with friends?	28- 3	2
How about--- B.	Household expenses?	29- 6	5
C.	Being tired?	30- 9	8
D.	Being away from home too much?	31- 3	2
E.	Disciplining children?	32- 6	5
F.	In-laws?	33- 9	8
G.	Not showing love?	34- 3	2
H.	Your (husband's) job?	35- 6	5
I.	How to spend leisure time?	36- 9	8
J.	Religion?	37- 3	2
K.	Irritating personal habits?	38- 6	5

DECK 05

F 7. During the past few weeks, have you ever felt that you were not the kind of (husband/wife) you would like to be?

Yes 39-	1*
No	X

*IF YES:	A. Did you feel that way often or only once or twice?		
		Often 40-	4
		Once or twice	5

F 8. Taking all things together, how would you describe your marriage? Would you say that your marriage was <u>very happy</u>, <u>pretty happy</u>, or <u>not too happy</u>?

Very happy . 41-	7
Pretty happy.	8
Not too happy	9

IF <u>CHILDREN LIVING IN HOUSEHOLD,</u> CONTINUE WITH Q. F 9.

IF <u>CHILDREN, BUT NONE LIVING IN HOUSEHOLD</u>, SKIP TO Q. F10.

IF <u>NO CHILDREN AT ALL</u>, SKIP TO NEXT SECTION.

F 9. Would you say that you spend <u>quite a lot of time</u>, <u>a moderate amount of time</u>, or <u>relatively little time</u> doing things with your child(ren)?

Quite a lot 42-	1
Moderate amount . . .	2
Relatively little . .	3

F10. During the past few weeks, have you ever felt that you were not the kind of (father/mother) you would like to be?

Yes 43-	1*
No	X

*IF YES:	A. Did you feel that way often or only once or twice?		
		Often 44-	4
		Only once or twice . .	5

DECK 05

F11. Taking all things together, how would you describe your experiences
      as a parent? Would you say that they have been <u>very satisfying</u>,
      <u>pretty satisfying</u>, or <u>not especially satisfying</u>?

                                        Very satisfying 45- 7

                                        Pretty satisfying   8

                                        Not especially satisfying .   9

FOR <u>MARRIED</u>, SKIP TO NEXT SECTION

FOR <u>CURRENTLY NON-MARRIED</u>:

F12. Would you like to get married (again)?

                                        Yes 46- 1*

                                        No   X

*IF YES:	A. Do you expect to be married in the next few years?
	Yes 47- 4
	No 5
	Don't know . . . 6

F13. How concerned are you about not being married--<u>very concerned</u>,
      <u>moderately concerned</u>, <u>a little concerned</u>, or <u>not at all concerned</u>?

                                        Very concerned 48- 1

                                        Moderately concerned . . .   2

                                        A little concerned   3

                                        Not at all concerned . . .   4

DECK 06

Section W

1-	2-	3-	4-	5-

IF IN DOUBT AS TO WHO IS CHIEF WAGE EARNER, ASK W 1.

W 1. Who is (has been) the chief wage earner in your family? (CIRCLE CODE THAT APPLIES.)

<u>CIRCLE ONE</u>

Respondent, who is male head (includes single man) . 20- 1

Respondent's husband   2

Respondent, who is female head (includes single woman)   3

Other male (specify relationship to respondent)

_____   4

Other female (specify relationship to respondent)

_____   5

A.D.C. Family: No chief wage earner in family . . .   6   SKIP TO W18

Other (Specify) _____   7

W 2 THROUGH W16 APPLY TO <u>CHIEF WAGE EARNER</u>. FOR MARRIED WOMEN, ASK IN TERMS OF HUSBAND'S JOB.

W 2. (Are you/Is your husband) currently working?

Currently working 21- 1

Unemployed or laid off   2

On strike   3

Retired   4

Other (Specify) _____   5

FOR <u>UNEMPLOYED</u>, <u>LAID OFF</u>, <u>ON STRIKE</u> OR <u>RETIRED</u>, ASK W 3 IN TERMS OF LAST FULL-TIME JOB.

W 3. A. What kind of work (do you/does your husband) do?

22-
23-

_____

B. In what type of business (do you/does your husband) work?

24-

_____

C. (Do you/Does your husband) work for wages, salary or (are you/ is he) self-employed?

Wages or salary 25- 7

Self-employed   8

DECK 06

FOR <u>CURRENTLY WORKING</u>: SKIP TO W 7.

FOR <u>UNEMPLOYED</u> OR <u>LAID OFF</u>: ASK W 4 AND W 5.

FOR <u>RETIRED</u>: ASK W 6.

FOR <u>UNEMPLOYED</u> OR <u>LAID OFF</u> ONLY:

W 4. How many weeks during the past year (have you/has your husband) been
without work because of unemployment?

26- _____ weeks

W 5. (Do you/Does your husband) expect to get (your/his) old job back in
the near future?

Yes . . . . 27- X

No 1*

*IF NO:	A. (Are you/Is he) currently looking for a job?
	Yes 28- 4
	No 5

SKIP TO Q. W 17

FOR <u>RETIRED</u> ONLY:

W 6. How long (have you/has your husband) been retired?

29- _____ SKIP TO W17

FOR <u>CURRENTLY WORKING CHIEF WAGE EARNER</u>:

W 7. How long (have you/has your husband) had (your/his) present job?
(been in present business?)

Less than one month . . . 30- 0*

1 - 6 months 1*

1 year 2

2 years 3

3 - 5 years 4

6 - 10 years 5

11 - 20 years 6

21 years or more 7

*IF LESS THAN SIX MONTHS:	A. Is this job considered permanent or temporary?
	Permanent 31- 8
	Temporary 9

DECK 06

W 8. How many weeks during the last year (were you/was your husband) with-
out work because of unemployment?

None	32-	0
Less than 2 weeks		1
2 - 5 weeks		2
6 - 13 weeks		3
14 - 20 weeks		4
21 - 26 weeks		5
More than 26 weeks		6

W 9. Is the job (you now have/your husband now has) the best job (you've/
he's) ever had or (have you/has he) had a better one?

Best job . . . 33- X
Had better one. 1*

* IF BETTER JOB:	A. How long ago was that?		
	Less than 1 year ago	34-	3
	1 to less than 2 years ago		4
	2 to less than 5 years ago		5
	5 to less than 10 years ago . . .		6
	10 or more years ago		7

W10. During the past year (have you/has your husband) received a raise in
pay (have your earnings increased)?

Yes . . . . . . 35- X
No 1*

*IF NO:	A. Has (your/his) pay decreased in the past year?		
	Yes 36- 3		
	No 4		

W11. During the past year (have you/has your husband) received a promotion?

Yes 37- 6
No 7

W12. How satisfied are you with--(READ RESPONSE CATEGORIES TO RESPONDENT.)

Would you say you are--

		Very satisfied	Somewhat satisfied	Somewhat dis- satisfied	Very dis- satisfied
A. Your (husband's) earnings?	38-	4	3	2	1
B. The kind of work (you do/ he does)	39-	9	8	7	6
C. (DO NOT ASK OF SELF-EMPLOYED) (Your/His) boss or employer?	40-	4	3	2	1
D. Taking all things together, how do you feel about your (husband's) (work/business) as a whole?	41-	9	8	7	6

DECK 06

W13. What are your (husband's) chances for advancement--<u>good</u>, <u>fair</u>, or <u>poor</u>?

Good 42- 1

Fair   2

Poor   3

W14. Do the people you know think of (you/your husband) as having a <u>good job</u>, an <u>average job</u>, or <u>not too good a job</u>?

Good job 43- 5

Average job . . .   6

Not too good a job   7

ASK W15 - W16 OF CHIEF WAGE EARNERS ONLY.
FOR ALL OTHER RESPONDENTS SKIP TO W17.

W15. Some people really enjoy their work and find it a source of great satisfaction; others look on their work as something they have to do in order to make a living.

Which way do you feel?

Enjoys work 44- 1

Just a way to make a living . .   2

Other (Specify) _____   3

W16. Sometimes people feel they are not doing aa good a job at work as they would like to. During the <u>past few weeks</u> have you ever felt this way?

Yes 45- 1*

No   X

---

*IF YES: A. Have you felt that way often or only once or twice?

Often 46- 4

Only once or twice   5

DECK 06

EMPLOYMENT STATUS OF WIFE (TO BE ASKED OF HUSBANDS AS WELL). IF SINGLE PERSON
SKIP TO NEXT SECTION.

W17. (Do you/Does your wife) have a job?

Yes 47- 1*

No . . . .   2#

---

*IF YES: | A. Is that full-time or part-time work?
| Full-time 48- 4
| Part-time   5

| B. What (do you/does she) do?
| 49-
| 50-

| C. Would (you/your wife) work if you didn't need the money?
| Yes 51- 7
| No   8
| SKIP TO NEXT SECTION

#IF NO: | D. Did (you/your wife) work after you were married?
| Yes . . . . 52- 1+
| No   X

| **+IF YES:** | (1) Did (you/your wife) work after children were born?
| | Yes 53- 3
| | No   4
| | No children   5

| E. (Are you/Is your wife) planning to go to work in the next few years?
| Yes, full-time . . 54- 7&
| Yes, part-time . .   8&
| No   9

| **& IF PLANNING TO WORK AT ALL:** | (2) What would be (your/her) main reason for getting a job?
| | 55-

DECK 06

FOR FULL-TIME HOUSEWIVES: ASK W18 - W21.

W18. Women feel differently about different aspects of taking care of a home. For example, some women really enjoy cooking while others see cooking as just a job that has to be done. How do you feel about cooking?

Enjoys cooking 56- 1

Just a job to be done. 2

W19. What about housework? Cleaning and things like that? Do you enjoy housework or do you see it just as a job that has to be done?

Enjoys housework . . . 57- 4

Just a job to be done. 5

W20. What about taking care of children? Do you enjoy it or do you see it more as a job that has to be done?

Enjoys taking care of children 58- 7

Just a job 8

No young children or no children at all . 9

W21. Do you get much chance to spend time with other people during the day?

Yes 59- 1

No 2

DECK 07

Section N

1-	2-	3-	4-	5-

N 1. Now let's talk a bit about this community (neighborhood). What is this community (neighborhood) called?

20-

N 2. How long have you been living in (NAME OF COMMUNITY)?

Less than 1 year	21-	1*
1 to less than 4 years . .		2*
4 to less than 10 years .		3*
More than 10 years		4*
All my life		5

*UNLESS "ALL MY LIFE:	A. How long have you lived in (NAME OF CITY) (Prince Georges County)? 22- _____
	B. Where did you live before that? _____ 23-

N 3. Do most of your friends live here in (NAME OF COMMUNITY) or do most of them live further away?

Neighborhood	24-	6
Half and half		7
Further away		8
Don't know		9

N 4. How often do you visit in the homes of people who live right around here? Would you say <u>very often</u>, <u>fairly often</u>, <u>just once in a while</u>, or <u>not at all</u>?

Very often	25-	1
Fairly often		2
Just once in a while . . .		3
Not at all		4

N 5. On the whole, would you say that the people who live in (NAME OF COMMUNITY) are pretty much the same sort of person you are, or are they different from you in important ways?

Pretty much the same . . .	26-	6
Different		7*
Don't know		8

* IF DIFFERENT:	A. In what way are they different?
	27-

DECK 07

N 6. On the whole, how happy are you with living here in (NAME OF COMMUNITY); would you say you're <u>very happy</u>, <u>pretty happy</u>, or <u>not too happy</u> with this neighborhood?

Very happy 28- 1

Pretty happy   2

Not too happy   3

N 7. Do you think of (NAME OF COMMUNITY) as your real home--the place where you really belong, or do you think of it as just a place where you happen to be living?

Really belong 29- 6

Just a place   7

Don't know   9

N 8. Do you have any plans to move within the next year?

Yes 30- 1

No   2

Don't know   3

N 9. What do you think is the biggest problem that people of (NAME OF COMMUNITY) have to face currently?

31-

32-

DECK 08

Section B

| 1- | 2- | 3- | 4- | 5- |

Finally, I would like to ask you a few questions about your own background.

B 1. Where were you born?

_____ 20-

IF U.S., NAME OF STATE:

_____ 21-

(DO NOT ASK A AND B IF FOREIGN BORN.)

A. Where were your parents born?

Mother _____ 22-

Father _____ 23-

IF EITHER PARENT BORN IN U.S., ASK B:

B. What country (countries) did your mother's/father's people originally come from?

Mother _____ 24-

Father _____ 25-

B 2. Were you brought up mostly <u>on a farm</u>, <u>in a town</u>, <u>in a small city</u>, or <u>in a large city</u>?

Farm	26- 0
Town	1
Small city . . .	2
Large city . . .	3

B 3. What was the highest grade in school that you completed?

8th grade or less	27- 5
Some high school	6
High school graduate . . .	7
Some college	8
College graduate or more .	9

B 4. Did you always live together with both of your <u>real</u> parents up to the time you were 16 years old?

Yes	28- X
No	1*

*IF NO:

A. What happened?

29-

B. How old were you when it happened?

30- _____ years

DECK 08

B 5. What kind of work did your father (or step-father) do for a living while you were growing up?

31-
32-

B 6. What was the highest grade in school completed by your father (step-father)?

8th grade or less 33- 0

Some high school 1

High school graduate 2

Some college 3

College graduate or more 4

Don't know 5

B 7. What was the highest grade in school completed by your mother (step-mother)?

8th grade or less 34- 0

Some high school 1

High school graduate 2

Some college 3

College graduate or more 4

Don't know 5

B 8. Which of the following statements best describes your family's financial situation when you were growing up?

Above average 35- 7

Average 8

Below average 9

B 9. How many rooms do you have in this (apartment) (house)?

36- ___rooms

DECK 08

B10. Do you own or rent?

Own 37- 0

Rent 1

B11. Apart from mortgages if you decided to pay off all of your debts
in the next month or so, would you be able to do so without
borrowing money?

Yes 38- 3*

No 4

Don't have any debts . . . 5

*IF YES: A. Would it take just about everything you have or would
you have something left over?

Take everything 39- 7

Something left over . . . 8

Don't know 9

B12. What was your total income from all sources last year for yourself
and your immediate family? (HAND RESPONDENT INCOME CARD.)

40- $_____

END OF INTERVIEW

DECK 08

I.   Time interview ended: _____ A.M.
                                                             P.M.

II. Total length of interview _____ hr. and _____ min.   41-

III. Race of respondent

                                              White 42- 1
                                              Negro   2
                                              Oriental   3

IV. Was anyone else present during any part of the interview?

                                                     Yes . . . 43- 1*
                                                     No . . .   X

     *IF YES: | A. Who was it?   Wife 44- 3
              | Child(ren)   4
              | Parent   5
              | Other (Specify)
              | _____   6

 V. In general, what was the respondent's attitude toward the interview?

                     Friendly and eager 45- 1
                     Cooperative but not particularly eager   2
                     Indifferent and bored   3
                     Hostile   4

VI. IF RESPONDENT FOREIGN BORN:

     A. Was interview conducted in English or foreign language?

                                              English 46- 0
                                              Foreign language.   1

     B. Respondent's understanding of English:

                                              Good 47- 3
                                              Fair   4
                                              Poor   5

VII. Rate respondent's alertness and estimated intelligence:

                                  Dull, uncomprehending . . 48- 6
                                  Slow, needs explaining . .   7
                                  Average intelligence . . .   8
                                  Above average intelligence   9

VIII. Type of dwelling:

                                  Single-family, detached . 49- 0
                                  Single-family, attached .   1
                                  2 units   2
                                  3 units   3
                                  4 - 6 units   4
                                  7 - 9 units   5
                                  10 units or more   6
                                  Other (Specify) _____   7

==

                        Interviewer's Signature _____

WAVE III QUESTIONNAIRE: EXCERPTS

NORC
SURVEY 458 WAVE III
9/63
CONFIDENTIAL

1-	2-	3-	4-	5-

NATIONAL OPINION RESEARCH CENTER

UNIVERSITY OF CHICAGO

PERSONAL INTERVIEW

Segment Number _____   Household number _____
                                                        (two digits)

RESPONDENT'S NAME _____ TEL. NO. _____

STREET ADDRESS _____

CITY _____   STATE _____

INTERVIEW COMPLETED _____
                        (Date)

INTRODUCTION

Hello, I'm _____ from the National Opinion Research
Center of the University of Chicago. We're here to interview you
again in our national study of everyday activities and problems
of Americans.

Time Began _____   DECK 01

THE INTERVIEW

P 1. We interviewed you last _____. In this study we are particularly
      interested in what has happened to people since we last talked to them.
      For instance, is there anyone living in your household now who was <u>not</u>
      living here when we interviewed you before?

                                   Yes . . . . 20- 1* ASK A

                                   No   X

*IF YES:	A. Who?
	Respondent's spouse 21- 1
	Respondent's parent(s) 2
	Respondent's other relatives . . 3
	Spouse's parent(s) 4
	Spouse's other relatives 5
	New-born infants 6
	Respondent's children 7
	Other (boarders, etc.) 8

P 2. Is there anyone who was living in your household then who is <u>not</u> living
      here now?
                                   Yes . . . . 22- 1* ASK A

                                   No   X

*IF YES:	A. Who?
	Respondent's spouse 23- 1
	Respondent's parent(s) 2
	Respondent's other relatives . . 3
	Spouse's parent(s) 4
	Spouse's other relatives 5
	Children 7
	Other (boarders, etc.) 8

P 3. How many people are now living in your household? (Be sure to include all children living in the household, people temporarily away, roomers, etc.)

24- _____
(Number of People)

P 4. Thinking back over the time since the last interview, did anything particularly <u>good</u> happen to you or your family?

Yes . . . . 25- 1* ASK A
No   X

*IF YES:	A. What?
	26-
	27-

P 5. Did anything particularly <u>bad</u> happen to you or your family since the last interview?

Yes . . . . 28- 1* ASK A
No   X

*IF YES:	A. What?
	29-
	30-

P 6. Have there been any deaths in your family or among your close friends during the time since the last interview?

Yes . . . . 31- 1* ASK A
No   X

*IF YES:	A. Who?	
	Respondent's spouse	32- 1
	Respondent's parent(s)	2
	Respondent's child(ren) . . .	3
	Respondent's other relatives .	4
	Spouse's parent(s)	5
	Spouse's other relatives . . .	6
	Friend(s)	7
	Other (SPECIFY) _____	8

P 13. All things considered, how satisfied are you with your social life?
Would you say you are very satisfied, pretty satisfied, or not too
satisfied?

                                  Very satisfied 42- 1

                                  Pretty satisfied   2

                                  Not too satisfied   3

P 15. Thinking back over the things you've done during the past few weeks,
was there anything that you had never done before, or hadn't done
in a long time?

                                  Yes . . . .   45- 1* ASK A

                                  No   X

*IF YES:	A. What was that?
	46-

P 16. During the past few weeks, have you gone any place that you had never
been before?

                                  Yes 47- 1

                                  No   2

P 18. Do you have any things that you like to do in your spare time such as
hobbies or special interests?

                                  Yes . . . .   50- 1* ASK A

                                  No   X

*IF YES:	A. What is that?
	51-
	52-

P 19. Since we last talked with you, have you joined any organizations such as church and school groups, labor unions or social, civic and fraternal clubs?

                         Yes . . . . 53- 1* ASK A

                         No X

*IF YES:	A. How many have you joined in that time?
	54- _____

P 20. Since the last interview, have you resigned from or quit any organizations that you had belonged to?

                         Yes . . . . 55- 1* ASK A

                         No 2

*IF YES:	A. How many?
	56- _____

P 23. In the period since the last interview, did anything happen in the national or international news that made you upset or tense?

                         Yes . . . . 60- 1* ASK A

                         No X

*IF YES:	A. What?
	61-
	62-

P 24. What about things here in your community? Did anything happen in the local news during that time that made you upset or tense?

                         Yes . . . . 63- 1* ASK A

                         No X

*IF YES:	A. What?
	64-
	65-

H 10. When you think of the things you want from life, would you say that you're <u>doing very well</u>, <u>doing pretty well</u>, or you're <u>not doing too well</u> now in getting the things you want?

Doing very well now 53- 5

Doing pretty well now . . . . . , 6

Not doing too well now 7

H 11. I'm going to read you some statements that describe people. For each one please tell me whether the statement is <u>true for you</u> or <u>not true for you</u>.

		True for me	Not true for me	DK
A.	People often ask me for advice.	54- 1	2	3
B.	Most of the people I meet are selfish and inconsiderate.	55- 6	7	8
C.	I'm frequently sorry about decisions I have made.	56- 1	2	3
D.	When problems come up I'm generally able to find out how to solve them.	57- 6	7	8
E.	Some people don't have as much respect for me as they should.	58- 1	2	3
F.	I often look things up in reference books when I need information.	59- 6	7	8
G.	I've found that it doesn't pay to put yourself out for other people.	60- 1	2	3
H.	I tend to go to pieces in a crisis.	61- 6	7	8
I.	I've found that most people can be trusted.	62- 1	2	3
J.	On the whole I'm satisfied with myself.	63- 6	7	8

SECTION F

Now, I'd like to ask you about your family.

F 1. What is your current marital status?

Married	20-	1	ASK A
Married, Spouse absent . .		2	ASK A
Separated		3	ASK A, THEN SKIP TO Q. F 3.
Divorced		4	
Widowed		5	
Never married		6	SKIP TO Q. F 11

A. Is your marital status the same now as it was when we last
interviewed you, or has it changed?

Same	21-	X	
Changed		1*	ASK (1)

---

*IF CHANGED: (1) What was it before?

Single	22-	4
Married		5
Separated		6
Divorced		7
Widowed		8

IF RESPONDENT IS CURRENTLY MARRIED, ASK Q. F 2
IF RESPONDENT IS CURRENTLY NON-MARRIED, ASK Q. F 3

F 2. Do you have any children?

Yes	23-	1*	ASK A,B
No		2	SKIP TO Q. F 4

---

*IF YES: A. How many?

24-

B. How many live here in this household?

25-
SKIP TO Q. F 4

F 3. Do you have any children?

Yes	26- 1*	ASK A,B
No	2	SKIP TO Q. F 11

*IF YES:	A. How many?
	27-
	B. How many live here in this household?
	None . . . . 28- 0 SKIP TO Q. F 9
	Number _____ SKIP TO Q. F 8

F 4. I'm going to read you some things that married couples often do together. Tell me which ones you and your (husband/wife) have done together <u>in</u> the past few weeks.

			Yes	No
A.	Visited friends together.	29-	2	3
B.	Gone out together to a movie, bowling, sporting event or some other entertainment.	30-	5	6
C.	Spent an evening just chatting with each other.	31-	8	9
D.	Worked on some household project together.	32-	2	3
E.	Entertained friends in your home.	33-	5	6
F.	Gone shopping together.	34-	8	9
G.	Had a good laugh together or shared a joke.	35-	2	3
H.	Ate out in a restaurant together.	36-	5	6
I.	Been affectionate toward each other.	37-	8	9
J.	Taken a drive or gone for a walk just for pleasure.	38-	2	3
K.	Did something that the other one particularly appreciated.	39-	5	6
L.	Helped the other solve some problem.	40-	8	9

DECK 05

SECTION W ☐☐☐☐☐
        1- 2- 3- 4- 5-

IF IN DOUBT AS TO WHO IS CHIEF WAGE EARNER, ASK W 1.

W 1. Who is (has been) the chief wage earner in your family? (CIRCLE CODE THAT
       APPLIES.)

                                                        CIRCLE ONE

       Respondent, who is male head (includes single man) 20- 1
       Respondent's husband   2
       Respondent, who is female head (includes single
       woman)   3
       Other male (SPECIFY RELATIONSHIP TO RESPONDENT)

       _____   4

       Other female (SPECIFY RELATIONSHIP TO RESPONDENT)

       _____   5

       A.D.C. Family-or Welfare, no potential chief wage
       earner in family . . . .   6 SKIP TO NEXT SECTION
       Other_____   7 SKIP TO NEXT SECTION

W 2. THROUGH W 15. APPLY TO <u>CHIEF WAGE EARNER</u>. FOR MARRIED WOMEN, ASK IN TERMS OF
     HUSBAND'S JOB.

W 2. (Are you/Is your husband) currently working?

                        Currently working 21- 1
                        Unemployed or laid off . . . .   2 SKIP TO W 15.
                        On strike   3
                        Retired . . . .   4 SKIP TO W 18.
                        Other (SPECIFY) _____   5

FOR <u>CURRENTLY WORKING</u> OR <u>ON STRIKE CHIEF WAGE EARNER</u>:

W 3. Is the job (you have/your husband has) now the same job (you/he) had
      the last time we interviewed you?

                                        Yes . . . 22- X
                                        No . . .   1* ASK A,B,C,D

*IF NO:	A. How has it changed?	
		23-
	B. What kind of work (do you/does your husband) now do?	24- 25-
	C. In what type of business (do you/does your husband) now work?	26-
	D. (Do you/Does your husband) work for wages, salary, or (are you/is he) self-employed?	
	Wages or salary . . . 27- 7	
	Self-employed 8	

W 4. How many weeks since we last interviewed you (were you/your husband) unemployed, laid off, or on strike?

None 28-	0
Less than 2 weeks	1
2 - 5 weeks	2
6 - 13 weeks	3
14 - 20 weeks	4
21 or more weeks	5

W 11. About how many miles is it from your home to the place where (you/your husband) work(s)?

Less than 1 mile 39-	0
1 to 2 miles	1
3 - 4 miles	2
5 - 6 miles	3
7 - 9 miles	4
10 - 14 miles	5
15 - 19 miles	6
20 - 24 miles	7
25 or more miles	8

W 12. How long does it usually take (you/your husband) to get to work?

Less than 10 minutes 40-	0
10 to 14 minutes	1
15 to 19 min.	2
20 to 29 min.	3
30 to 44 min.	4
45 to 59 min.	5
1 hr. to 1 hr. 14 min.	6
1 hr. 15 min. to 1 hr. 29 min. . . .	7
1-1/2 hrs. or more	8

FOR <u>UNEMPLOYED</u> OR <u>LAID OFF</u> ONLY:

W 15. (Have you/Has your husband) worked at all since the last time we interviewed you?

Yes . . . . 44- 1* ASK A,B,C

No   X

*IF YES:	A. What kind of work (did you/did your husband) do?
	45-
	46-
	B. In what type of business (did you/did your husband) work?
	47-
	C. (Did you/Did your husband) work for wages, salary, or (were you/was he) self-employed?
	Wages or salary 48- 7
	Self-employed 8

W 16. How many weeks now (have you/has your husband) been out of work?

Less than 2 weeks 49- 0

2 - 5 weeks   1

6 - 13 weeks   2

14 - 20 weeks   3

21 or more weeks   4

W 17. (Do you/Does your husband) expect to get (your/his) old job back in the near future?

Yes . . . . 50- X

No . . . .   1* ASK A

*IF NO:	A. (Are you/Is he) currently looking for a job?
	Yes 51- 4
	No 5

DECK 05

IF <u>SINGLE PERSON</u>, SKIP TO SECTION N.

W 18. (Do you/Does your wife) have a job now?

           Yes . . . . 52- 1* ASK A-E

           No . . . .   2# ASK F

---

*IF YES:

A. Did (you/she) have the same job the last time we interviewed you?

           Yes 53- 5

           No   6

B. Is this a full-time or part-time job?

           Full-time 54- 1

           Part-time 2

C. What (do you/does she) do?

           55-

           56-

D. What are (your/her) main reasons for working?

           To earn money 57- 1

           Pursue career 2

           Get out of house 3

           Other (SPECIFY) _____ 4

E. Would (you/your wife) work if (you/she) didn't need the money?

           Yes 58- 6

           No 7

#IF NO:

F. (Are you/Is your wife) planning to go to work in the next few years?

           Yes, full-time . . . 59- 1+ ASK (1)

           Yes, part-time . . . 2+ ASK (1)

           No . . . . 3 SKIP TO
                                NEXT
                                SECTION

+IF PLANNING TO WORK AT ALL:

(1) What would be (your/her) main reason for getting a job?

           To earn money 60- 5

           Pursue career 6

           Get out of house 7

           Other (SPECIFY) _____ 8

DECK 06

SECTION N

1-	2-	3-	4-	5-

IF <u>RESPONDENT HAS MOVED</u> SINCE LAST INTERVIEW, CIRCLE "MOVED" AND ASK N 1.
IF <u>RESPONDENT HAS NOT MOVED</u> SINCE LAST INTERVIEW, CIRCLE "NOT MOVED" AND ASK N 2.

Moved 20- 1

Not moved 2

N 1. Is this the same (neighborhood/community) you were living in the last time we spoke with you or have you moved to a different (neighborhood/ community)?

Same neighborhood 21- 1

Different neighborhood 2

N 6. How closely do you follow the news about the current Negro equal rights movement? Would you say you follow it <u>very closely</u>, <u>fairly closely</u>, or <u>not too closely</u>?

Very closely 29- 1

Fairly closely 2

Not too closely 3

N 7. I'm going to read you some things that have been happening recently. For each one tell me whether you <u>approve strongly</u>, <u>approve moderately</u>, <u>disapprove moderately</u>, or <u>disapprove strongly</u>.

		Approve strongly	Approve moderately	Disapprove moderately	Disapprove strongly	D.K.
A.	The Civil Rights March in Washington last August	30- 1	2	3	4	X
B.	Restaurant sit-ins	31- 6	7	8	9	X
C.	Picketing of segregated schools	32- 1	2	3	4	X
D.	President Kennedy's Civil Rights Bill	33- 6	7	8	9	X

N 8. Do you think the **equal** rights movement in the country today is moving <u>too fast</u>, <u>too slowly</u>, or <u>at about the right speed</u>?

Too fast 34- 1

Right speed 2

Too slowly 3

N 9. Some people seem to feel upset or uneasy about the current equal rights movement. Other people are pleased about it, and still others have no feelings one way or the other. Which comes closest to how you feel, upset or uneasy, pleased, or no feelings one way or the other?

Upset or uneasy . . . 35-	5* ASK A
Pleased	6* ASK A
No feelings	7

*IF UPSET OR PLEASED:	A. Why do you feel that way?
	36-

IF HAS DEBTS, ASK 15.

N 15. Apart from mortgages, what is your best guess of your total debt?

46- $_____

N 16. What do you think will be your total income from all sources this year (1963) for yourself and your family? (HAND RESPONDENT BLUE CARD.)

47- $_____

END OF INTERVIEW

References

ALLPORT, G. W. The trend in motivational theory. *American Journal of Orthopsychiatry,* 1953, **23** (January), 107–19.

ARISTOTLE. *Nicomachean ethics.* Translated by W. D. Ross. In R. McKEON (Ed.), *Introduction to Aristotle.* New York: Modern Library, 1947.

BAUER, R. A. (Ed.) *Social indicators.* Cambridge, Mass.: M.I.T. Press, 1966.

BEILIN, H., and WERNER, E. Interviewing availability of a follow-up sample of rural youth. *Public Opinion Quarterly,* 1957, **21** (Fall), 380–84.

BIRREN, J. E., BUTLER, R. N. GREENHOUSE, S. W., SOKOLOFF, L., and YARROW, M. R. (Eds.) *Human aging: A biological and behavioral study.* U. S. Public Health Service Publication No. 986. Bethesda, Md.: National Institute of Mental Health, U. S. Department of Health, Education, and Welfare, 1963.

BLAUNER, R. Work satisfaction and industrial trends in modern society. In W. GALENSON and S. M. LIPSET (Eds.), *Labor and trade unionism: An interdisciplinary reader.* New York: Wiley, 1960. Pp. 339–60.

BLOOD, R. O., JR., and WOLFE, D. M. *Husbands and wives: The dynamics of married living.* Glencoe, Ill.: Free Press, 1960.

BLUM, A. F. Social structure, social class, and participation in primary relationships. In A. B. SHOSTAK and N. GOMBERG, *Blue-collar world: Studies of the American worker.* Englewood Cliffs, N.J.: Prentice-Hall, 1964. Pp. 195–206.

BRADBURN, N. M. *Inter-plant transfer: The Sioux City experience.* Report No. 98. Chicago: National Opinion Research Center, May, 1964.

BRADBURN, N. M., and CAPLOVITZ, D. *Reports on happiness: A pilot study of behavior related to mental health.* Chicago: Aldine, 1965.

BRADBURN, N. M., and FELDMAN, J. J. Public apathy and public grief. In B. S. GREENBERG and E. B. PARKER (Eds.), *The Kennedy assassination and the American public: Social communication in crisis.* Stanford, Calif.: Stanford University Press, 1965. Pp. 273–86.

BRADBURN, N. M., and MASON, W. M. The effect of question order on responses. *Journal of Marketing Research,* 1964, **1** (November), 57–61.

Bross, I. D. J. How to use ridit analysis. *Biometrics,* 1958, **14** (March), 18–38.

Bross, I. D. J., and Feldman, R. *Ridit analysis of automotive crash injuries.* New York: Division of Automotive Crash Injury Research, Department of Public Health and Preventive Medicine, Cornell University Medical College, 1956.

Caplovitz, D., and Bradburn, N. M. *Social class and psychological adjustment: A portrait of the communities in the "Happiness" study: A preliminary report.* Chicago: National Opinion Research Center, January, 1964. (Processed.)

Cronbach, L. J. *Essentials of psychological testing.* (2nd ed.) New York: Harper & Row, 1960.

Davis, J. A. *Education for positive mental health: A review of existing research and recommendations for future studies.* Chicago: Aldine, 1965.

Davis, J. A. A partial coefficient for Goodman and Kruskal's gamma. *Journal of the American Statistical Association,* 1967, **62** (March), 189–93.

Dohrenwend, B. P., and Dohrenwend, B. S. The problem of validity in field studies of psychological disorder. *Journal of Abnormal Psychology,* 1965, **70** (February), 52–69.

Dubin, R. Industrial workers' world: A study of the central life interests of industrial workers. *Social Problems,* 1956, **3** (January), 131–42.

Duncan, O. D. A socioeconomic index for all occupations (Chap. 6) and Properties and characteristics of the socioeconomic index (Chap. 7). In A. J. Reiss, Jr., *Occupations and social status.* New York: Free Press of Glencoe, 1961. Pp. 109–61.

Engel, G. L. Is grief a disease? *Psychosomatic Medicine,* 1961, **23** (January–February), 18–23.

Faunce, W. A., and Smucker, M. J. Industrialization and community status structure. *American Sociological Review,* 1966, **31** (June), 390–99.

Fenichel, O. *Psychoanalytic theory of neuroses.* New York: Norton, 1945.

Fiske, D. W., and Maddi, S. R. (Eds.) *Functions of varied experience.* Homewood, Ill.: Dorsey Press, 1961.

Friedan, B. *The feminine mystique.* New York: Norton, 1963.

Gaudet, H., and Wilson, E. C. Who escapes the personal investigator? *Journal of Applied Psychology,* 1940, **24** (December), 773–77.

GOLDHAMER, H., and MARSHALL, H. W. *Psychosis and civilization: Two studies in the frequency of mental disease.* Glencoe, Ill.: Free Press, 1953.

GOLDINGS, H. H. On the avowal and projection of happiness. *Journal of Personality,* 1954, 23 (September), 30–47.

GOODMAN, L. A. Statistical methods for analyzing processes of change. *American Journal of Sociology,* 1962, 68 (July), 57–78.

GOODMAN, L. A., and KRUSKAL, W. H. Measures of association for cross classifications. *Journal of the American Statistical Association,* 1954, 49 (December), 732–64.

GURIN, G., VEROFF, J., and FELD, S. *Americans view their mental health.* New York: Basic Books, 1960.

HARTMANN, G. Personality traits associated with variations in happiness. *Journal of Abnormal and Social Psychology,* 1934, 29 (July–September), 202–12.

HAUSKNECHT, M. *The joiners: A sociological description of voluntary association membership in the United States.* New York: Bedminister Press, 1962.

HERZBERG, F. *Work and the nature of man.* Cleveland: World Publishing Co., 1966.

HERZBERG, F., MAUSNER, B., PETERSON, R. O., and CAPWELL, D. F. *Job attitudes: Review of research and opinion.* Pittsburgh: Psychological Service of Pittsburgh, 1957.

HERZBERG, F., MAUSNER, B., and SNYDERMAN, B. B. *The motivation to work.* (2nd ed.) New York: Wiley, 1959.

HOCHSTIM, J. Comparison of three information gathering strategies in a population study of sociomedical variables. In American Statistical Association, *Proceedings of the Social Statistics Section, 1962.* Washington, D.C.: American Statistical Association, 1962. Pp. 154–59.

HODGE, R. W., SIEGEL, P. M., and ROSSI, P. H. Occupational prestige in the United States, 1925–63. *American Journal of Sociology,* 1964, 70 (November), 286–302.

HOLLINGSHEAD, A. B., and REDLICH, F. C. *Social class and mental illness: A community study.* New York: Wiley, 1958.

HOMANS, G. C. *Social behavior: Its elementary forms.* New York: Harcourt, Brace & World, 1961.

HYMAN, H. H., *et al. Interviewing in social research.* Chicago: University of Chicago Press, 1954.

INKELES, A. Industrial man: The relation of status to experience, perception, and value. *American Journal of Sociology,* 1960, 66 (July), 1–31.

INKELES, A., and ROSSI, P. H. National comparisons of occupational prestige. *American Journal of Sociology,* 1956, **61** (January), 329–39.

JAHODA, M. *Current concepts of positive mental health.* New York: Basic Books, 1958.

JASPER, H. H. The measurement of depression-elation and its relation to a measure of extraversion-introversion. *Journal of Abnormal and Social Psychology,* 1930, **25** (October-December), 307–18.

JONES, H. M. *The pursuit of happiness.* Cambridge, Mass.: Harvard University Press, 1953.

KNUPFER, G., CLARK, W., and ROOM, R. The mental health of the un-married. *American Journal of Psychiatry,* 1966, **122** (February), 841–51.

KORNHAUSER, A. *Mental health of the industrial worker.* New York: Wiley, 1965.

LANGNER, T. S., and MICHAEL, S. T. *Life stress and mental health.* New York: Free Press of Glencoe, 1963.

LASLETT, B. Rewards for work: The distribution and structure of work satisfaction. Unpublished Ph.D. dissertation proposal, Department of Sociology, University of Chicago, February, 1968.

LEIGHTON, D. C., HARDING, J. S., MACKLIN, D. B., MACMILLAN, A. M., and LEIGHTON, A. H. *The character of danger: Psychiatric symptoms in selected communities.* New York: Basic Books, 1963.

MARSH, J. F., JR., and STAFFORD, F. P. The effects of values on pecuniary behavior: The case of academicians. *American Sociological Review,* 1967, **32** (October), 740–54.

McCLELLAND, D. C., ATKINSON, J. W., CLARK, R. A., and LOWELL, E. L. *The achievement motive.* New York: Appleton-Century-Crofts, 1953.

McNEMAR, Q. *Psychological statistics.* (3rd ed.) New York: Wiley, 1962.

MORSE, N. C. *Satisfactions in the white-collar job.* Ann Arbor: Survey Research Center, Institute of Social Research, University of Michigan, 1953.

MORSE, N. C., and WEISS, R. S. The function and meaning of work and the job. *American Sociological Review,* 1955, **20** (April), 191–98.

NATIONAL OPINION RESEARCH CENTER. *Cincinnati looks again.* Report No. 37A. Chicago: NORC, [1948]. (Mimeographed.)

NEUMANN, F. Anxiety and politics. In M. R. STEIN, A. J. VIDICH, and D. M. WHITE (Eds.), *Identity and anxiety: Survival of a person in mass society.* Glencoe, Ill.: Free Press, 1960. Pp. 269–90.

ORDEN, S. R., and BRADBURN, N. M. Dimensions of marriage happiness. *American Journal of Sociology,* 1968, **73** (May), 715–31.

ORDEN, S. R., and BRADBURN, N. M. Working wives and marriage happiness. *American Journal of Sociology,* 1969, **74** (January), 392–407.

PARSONS, T. Social strains in America. In D. BELL (Ed.), *The new American right.* New York: Criterion Books, 1955. Pp. 117–40.

PHILLIPS, D. L. Social participation and happiness. *American Journal of Sociology,* 1967, **72** (March), 479–88.

PLATT, J. R. Beauty: Pattern and change. In D. W. FISKE and S. R. MADDI (Eds.), *Functions of varied experience.* Homewood, Ill.: Dorsey Press, 1961. Pp. 402–30.

ROGERS, J. M. Operant conditioning in a quasi-therapy setting. *Journal of Abnormal and Social Psychology,* 1960, **60** (March), 247–52.

ROSENBERG, M., THIELENS, W., and LAZARSFELD, P. F. The panel study. In M. JAHODA, M. DEUTSCH, and S. W. COOK (Eds.), *Research methods in social relations.* Part 2. *Selected techniques.* New York: Dryden Press, 1951. Pp. 587–609.

ROSS, W. D. *Aristotle.* (5th ed.) London: Methuen, 1949.

SAILER, R. C. Happiness self-estimates of young men. New York: Teachers College, Columbia University, 1931.

SHEATSLEY, P. B., and FELDMAN, J. J. A national survey of public reactions and behavior. In B. S. GREENBERG and E. B. PARKER (Eds.), *The Kennedy assassination and the American public: Social communication in crisis.* Stanford, Calif.: Stanford University Press, 1965. Pp. 149–77.

SMITH, M. B. "Mental health" reconsidered: A special case of the problem of values in psychology. *American Psychologist,* 1961, **16** (June), 299–306.

SROLE, L., LANGNER, T. S., MICHAEL, S. T., OPLER, M. K., and RENNIE, T. A. C. *Mental health in the metropolis: The midtown Manhattan study.* New York: McGraw-Hill, 1962.

STEVENS, S. S. Mathematics, measurement, and psychophysics. In S. S. STEVENS (Ed.), *Handbook of experimental psychology.* New York: Wiley, 1951. Pp. 1–49.

STOUFFER, S. A., GUTTMAN, L., SUCHMAN, E. A., LAZARSFELD, P. F., STAR, S. A., and CLAUSEN, J. A. *Studies in social psychology in World War II.* Vol. 4. *Measurement and prediction.* Princeton, N.J.: Princeton University Press, 1950.

SUDMAN, S., GREELEY, A. M., and PINTO, L. J. The use of self-administered questionnaires. In S. SUDMAN, *Reducing the cost of surveys.* Chicago: Aldine, 1967. Pp. 46–57.

SZASZ, T. S. *The myth of mental illness: Foundations of a theory of personal conduct.* New York: Harper & Row, 1961.

TREIMAN, B. R. *Families of the West End urban renewal area.* Chicago: National Opinion Research Center, October, 1964.

U. S. BUREAU OF THE CENSUS. *Statistical abstract of the United States. 1963.* (84th ed.) Washington, D.C.: U. S. Government Printing Office, 1963.

VINCENT, C. Socioeconomic status and familial variables in mail questionnaire responses. *American Journal of Sociology,* 1964, 69 (May), 647–53.

WASHBURNE, J. N. Factors related to the social adjustment of college girls. *Journal of Social Psychology,* 1941, 13 (May), 281–89.

WATSON, G. B. Happiness among adult students of education. *Journal of Educational Psychology,* 1930, 21 (February), 79–109.

WEISS, R. S., and KAHN, R. L. Definitions of work and occupation. *Social Problems,* 1960, 8 (Fall), 142–51.

WESSMAN, A. E. A psychological inquiry into satisfaction and happiness. Unpublished Ph.D. dissertation, Princeton University, 1956.

WESSMAN, A. E., and RICKS, D. F. *Mood and personality.* New York: Holt, Rinehart & Winston, 1966.

WILCOCK, R. C., and FRANKE, W. H. *Unwanted workers: Permanent layoffs and long-term unemployment.* New York: Free Press of Glencoe, 1963.

WILSON, W. Correlates of avowed happiness. *Psychological Bulletin,* 1967, 67 (April), 294–306.

ZEISEL, H. *Say it with figures.* (Rev. 4th ed.) New York: Harper & Row, 1957.

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NOTE: numerals in *italics* are table numbers.

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